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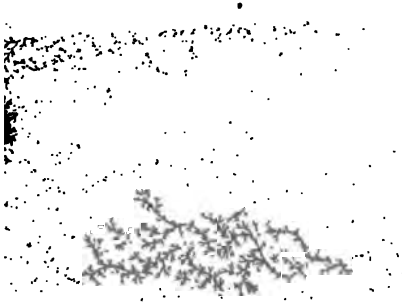

MANUAL

OF

DISEASES OF THE SKIN

WITH

AN ANALYSIS OF EIGHT THOUSAND CONSECUTIVE CASES

AND

A FORMULARY

BY

L. DUNCAN BULKLEY, A.M., M.D.

ATTENDING PHYSICIAN FOR SKIN AND VENEREAL DISEASES AT THE NEW YORK HOSPITAL, OUT-PATIENT DEPARTMENT; DERMATOLOGIST TO THE HOSPITAL FOR RUPTURED AND CRIPPLED; LATE PHYSICIAN TO THE SKIN DEPARTMENT, DEMILT DISPENSARY, NEW YORK; AUTHOR OF "ECZEMA AND ITS MANAGEMENT"; EDITOR OF THE "ARCHIVES OF DERMATOLOGY"; PERMANENT MEMBER OF THE AMERICAN MEDICAL ASSOCIATION; FELLOW OF THE NEW YORK ACADEMY OF MEDICINE, ETC., ETC.

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PREFACE.

THE following pages represent an attempt to present the subject of Diseases of the Skin concisely, and yet with sufficient details to be of practical value to the student and practitioner. They are offered as an introduction to the study of a branch which is of great importance, and yet which is not readily grasped, owing to many reasons, such as the large number and variety of affections of the skin, their difficulty of recognition and the confused and unwieldy nomenclature often employed.

The present little work has been largely prepared for those following my clinics at the New York Hospital, and has indeed grown out of a Skin Pharmacopœia arranged for their use. The aim has been to make it thoroughly practical, and it partakes much of the style of class room conversations upon the various diseases as they appear clinically. Pathology is introduced but briefly, and no attempt has been made to enter the literature of the subject, or to present or discuss doubtful questions. Differential diagnosis has not been fully entered on, for want of space, but in connection with each eruption mention is made of those with which it may

be confounded. In order to present the relative frequency and importance of different affections in the briefest space possible, a chapter is devoted to the analysis of eight thousand skin cases.

The nomenclature and classification employed correspond in the main to those used by many; the nomenclature being Latin, and the diseases being mostly grouped on a pathological basis. In this, as in other matters, the desire has been not to present new or startling features, but to harmonize, as far as possible, the views of dermatologists in various countries. It is hoped that the very complete index will be of much service.

The matter of therapeutics has been dwelt on more largely than might be expected in a small "manual"; it is hoped, however, that this, with the "formulary," may be of a practical value to the practitioner, while they serve as a guide to the student in becoming acquainted with remedies. While this portion represents to a certain degree the treatment recommended by others, the actual application of remedies refers rather to their employment in my own practice.

Acknowledgment is here made of aid derived from the writings of Hebra, Kaposi, Neumann, Duhring, Piffard, Wilson, Fox, Anderson, Hardy, and others, to the study of whose works it is hoped that the present may be a further incitement.

1 EAST 33RD STREET, NEW YORK CITY.

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MANUAL

OF

DISEASES OF THE SKIN.

CHAPTER I.

ON THE STUDY OF DERMATOLOGY.

WHILE it is not possible for every one to become proficient to the highest attainable degree in every branch of medical practice, there is no reason why all who enter the profession should not acquire a fair knowledge concerning the diseases which affect the integument. There are indeed many reasons why accuracy should be cultivated in this rather than in many other departments of medicine; and it may be fairly said that he who understands the branch of diseases of the skin well, is better fitted for general practice than he who is master of any other one specialty.

Dermatology is an especially inviting field, because all the lesions of disease are exposed to view, and pathological changes can be studied on the skin as nowhere else in the body. Here inflammation

[illegible] its processes and products can be watched while [illegible] hypertrophy and atrophy occur here [illegible] the fullest extent; and these, with new formations, constitute the richest field of pathological [illegible] both in their gross features, and in their [illegible] elements. And finally the study of [illegible] parasites as they affect the integument [illegible] discoveries in other fields of pathology.

[illegible] dermatology is inviting because there [illegible] branch of medicine, surgery not excepted, [illegible] accuracy of diagnosis can be obtained more [illegible] in a larger percentage of cases than in [illegible] affections of the skin. In no class of dis[illegible] are the results of treatment so [illegible] as in these. As it affects it wrong measures are [illegible] and the benefits from proper treat[illegible] are of less moment, both to the patient and [illegible]

The study of dermatology therefore, is not to be [illegible] because many of the diseases com[illegible] are of little importance to the practitioner, and are [illegible] cause of unnecessary loss of health. For [illegible] of diseases which are known to be in[illegible] there must always be those affected, but [illegible] the diseases of the integument are [illegible] from their bearing upon the general [illegible] the usefulness both of the surgeon and of [illegible] illustrations of this last assertion may be [illegible] the relations of certain diseases of the

skin to the gouty state, of which they are often precursory signs; also, the parasitic affections, which may sometimes spread through an entire school or community from carelessness; and, above all, the great importance of early recognizing every manifestation of syphilis should be borne in mind, both for the welfare of the patient and as a preventive of the spread of the disease to others. It must further be remembered that many diseases not always reckoned as belonging to the province of dermatology, such as small-pox, scarlet fever, measles, erysipelas, and others, exhibit skin phenomena which may at times be difficult of diagnosis, and may be closely simulated by quite different affections of the skin.

The relations of dermatology, therefore, to the practice of general medicine are most intimate and important, and a clear understanding of this branch is essential for general success. The close observation and the appreciation of minute features which are called for in the study of diseases of the skin, are also elements in medical practice the cultivation of which cannot be too strongly insisted upon; while the effect of remedies, external and internal, which can be clearly observed in the treatment of these diseases, teaches much in regard to the therapeutics of diseases of other organs.

The error has often occurred of isolating dermatology too much from the ordinary practice of

sisting; while it is thin and delicate on the eyelids, penis, and certain other regions. On the scalp, face, and elsewhere it produces hairs, which are but modifications of its epithelial elements; and on the ends of the fingers and toes, another variation in epidermal development gives rise to the nails. At the orifices of the body, as at the nose, mouth, urethra, vulva, and anus, its anatomy is altered to conform to the requirements of the parts, and the mucous membranes result, which are indeed but altered skin, whose diseases are often closely allied to or connected with those of the outward integument.

The skin is composed in the main of two layers, quite different in their structure and composition. The lower or deeper one is called the *corium*, *cutis vera*, *true skin*, or *derma*, and the outer one is named the *epidermis* (Greek, epi, upon, and derma, skin).

The *derma* or *corium*, the inner or deeper portion, which constitutes the leather of commerce, is composed of densely interwoven connective tissue fibres, firm and elastic, which interlace and form a texture resembling felt. At the deepest part of this corium or true skin, the fibres are separated, and between them are found masses of fat globules, constituting the *panniculus adiposus*, or adipose tissue; in the outer portion the fibres are closely matted together, and the surface externally rises into minute prominences, called the papillæ of the skin, this portion having the name of the papillary layer, or *pars papillaris*.

The *epidermis*, cuticle, or scarf skin, has no fibres, but is composed of roundish elements called cells. The deeper cells are more rounded or many-sided, and succulent, and compose what is known as the *rete mucosum* or *rete Malpighii;* this rests directly upon the papillæ, and dips down into the interstices between them. In the cells of this deepest layer is found the pigment or coloring matter, normally in the colored races and in certain regions of the white body, as about the areolæ of the breasts and elsewhere; it also occurs in this layer pathologically in certain diseased states, hence the difficulty of removing pigmentary deposits in the skin. The outer layers of cells of the epidermis are more flat, and as they approach the exterior they become still more flattened, hardened, and lifeless, only waiting to be thrown off or removed by friction.

The corium, or true skin, contains a number of elements which demand closer consideration. These are blood-vessels, nerves, lymphatics, muscular fibres, hair follicles, sebaceous glands, sweat glands, and nails.

The blood and nerve supply of the skin is exceedingly abundant, and is of the utmost importance in its relations to its diseases. Its very great richness in these elements may be judged from the fact, that even a fine needle cannot be introduced into the skin without drawing blood and causing pain. The blood-vessels coming from be-

low anastomose very freely in the skin and rise into the papillæ.

The *nerves of the skin* serve the purposes of presiding over its nutrition, of providing general sensation which shall protect the parts from injury, and of furnishing the sense of touch. In the main the larger nerves are confined to the corium, but nerve elements have been also traced beyond the true skin even into the second or third layer of cells of the rete Malpighii; also in the sheaths of the hair follicles, and in the sebaceous glands. Within the papillæ are found what is known as the *tactile corpuscles;* these consist of a mass of nucleated cells, mingled with connective tissue, into which the medullated nerve fibre is seen to run and apparently to terminate. It is thought that in them lies the sense of touch. The nerves which preside over nutrition, the *trophic nerves*, have not yet been demonstrated, and very little is also known with regard to the *vaso-motor nerves* in the skin; but that both these are exceedingly important in their relations to skin diseases cannot be doubted, from the structural changes, the functional glandular derangements, and also the congestion and inflammation which occur so readily in the integument.

The *lymphatics* of the skin are very numerous, and undoubtedly of importance in connection with its pathology. They have been recently demonstrated to be very abundant, both throughout the skin and

in connection with the sebaceous and sweat glands and the hair follicles. As yet we know little of their real relations to the diseases of the skin, although in certain affections, as elephantiasis, morphœa, lymphangioma, erysipelas and others, they probably play an important part. We see the lymphatic element exhibited in the multiple adenopathy of syphilis; also in the buboes connected with chancroids, and the milder glandular swellings accompanying prurigo and also inflammatory conditions on the lower extremities; likewise in the enlarged glands in the back of the neck, in pustular eczema and other diseases of the scalp.

Muscular fibres exist in the skin in two forms or conditions. First, there is a small amount of smooth muscular tissue running horizontally, which is more developed in certain localities than in others. In some animals there is a considerable amount of striated or voluntary muscular fibre throughout the entire skin, whereby they are able to move it to a slight degree, and thus to assist in shaking off dust, insects, etc.; the dartos of the scrotum somewhat resembles this, but here the movements are almost, if not quite, entirely involuntary, and these frequently interfere materially with the treatment of eczema in this region. The greatest development of the muscular fibre in the skin of man is found in the second form of distribution, in connection with the sebaceous glands and hair follicles, next to be described.

Hair and hair follicles.—The relations of the hair follicles to the integument can be best understood by imagining the lower or fibrous portion of the skin to be soft and plastic, and the upper or epidermal layers to be pushed down into it without breaking, around a penetrating hair; the sheaths of the hair are thus seen to be cellular, and to a certain extent to correspond to the layers in the epidermis. Quite a number of separate layers of cells have been made out and described, but the practical point to be remembered is, that they are cellular, reaching down into a fibrous structure; this will be found to be of importance in reference to the vegetable parasitic diseases. At the bottom of the hair follicle thus formed, which in the case of larger hairs extends through the extreme thickness of the skin, the fibrous elements of the corium rise and form what is known as the *hair papilla*, from which the hair is supposed to take its growth. This contains blood-vessels and extends up into, and is embraced by the lower portion of the hair. The hair itself is composed, like the epidermis, of cells; at its deepest portion, within the follicle, these cells are seen to be quite round or polygonal, and are soft and succulent like those of the rete Malpighii. Those further outward are more flat and compressed, until finally all the cells are so flattened and condensed together that they appear like fibres, and these constitute the entire length of the hair, however great.

Hairs exist over almost every portion of the surface of the body, with a few exceptions, as in the palms and soles, the internal surface of the prepuce, and the glans penis, though in some situations they are so fine as to be hardly discernible with the naked eye. The number of the hairs is exceedingly great, varying vastly in different individuals. Between seven and eight hundred have been counted on a square inch, and the total number on the scalp has been estimated at between ninety and one hundred and twenty thousand. Hair is very strong, and yet very elastic; a single hair has supported a weight of over two ounces, although such strength is undoubtedly exceptional; repeated instances have occurred where the scalp has been torn from the head by means of the hair, so firmly is it attached, and yet in disease it may fall with the slightest touch or break with the gentlest traction. Hair is so very elastic that it may stretch almost one third of its length, and regain its former dimensions.

Sebaceous or *sebiparous glands.*—These are irregularly shaped masses of glandular structure, belonging to the variety known as racemose glands, and with a single excretory duct; they are almost invariably connected with hairs of some size. Upon hairy parts, as the scalp, they form appendages to the hairs, and discharge their secretion into the hair follicles. Generally there are two to each hair, situated on opposite sides; but in some situations large

hairs have a number, even from four to eight, situated around them, forming a sort of collar about the hair. In other places, where the hairs are fine and rudimentary, the sebaceous glands are large, and the tiny hair appears there as an appendage to a comparatively large gland. All the sebaceous glands, however, are very minute affairs, and mostly situated in the outer portion of the corium. The secretion from these glands is of an oily nature, and when in a healthy condition, it is perfectly fluid at the temperature of the body. The quantity of the secretion is not very great in health, and its main function appears to be to keep the skin and hairs in a flexible state; although the amount of solid matter thrown off thus must be of some importance in the economy. When these glands fail to act, we have a dry harsh condition of the skin, known as xeroderma; and when the secretion becomes blocked, it forms comedo, both of which states will be treated of in connection with acne. Sometimes the secretion is great, and appears as an oily coating on the skin; or it may dry, forming coarse scales or greasy crusts, representing seborrhœa or acne sebacea. Neither of these conditions in which the secretion is observed represents the normal state of the sebaceous material.

The *muscles* of the skin, which are connected with the hair follicles and sebaceous glands, the *arrectores pilorum*, play a part which it is important to

understand. These are attached to the lowest portion of the hair follicle, and, running diagonally, are inserted in the upper portion of the corium; they thus embrace the sebaceous glands connected with the hairs, so that each time they contract, pressure is made upon the glands, and their contents more or less forced out. On the parts of the body, such as the face, back, and chest, where the sebaceous glands are very large and the hairs very insignificant, the glands lose this aid to the expulsion of their secretion and very readily become clogged, thus furnishing one of the reasons for the prevalence of acne upon these parts. When these muscles contract under the influence of cold or mental emotions, the surface presents minute transitory elevations, *cutis anserina*, or "goose skin;" this may be produced at will on entering a bath, by allowing the exposed surface to become a little chilled, while dry, when the hairs are seen to become erected, especially on the arms.

Sweat or *sudoriparous glands*.—These are in the form of minute tubes, which are coiled up in the deepest portion of the corium, or even in the subcutaneous adipose tissue, and then extending through the entire thickness of the skin, and after making several spiral turns within the epidermal portion, they open directly upon the outer surface. These glands are very numerous in some portions; on the sole of the foot and palm of the hand there are about 2700

in the square inch; on the legs there are about 550 in the same space, and on the forehead about 1250. According to careful computation their total number amounts to almost 2,400,000; the total length of all of these minute tubes when uncoiled has been variously estimated at from two to eight miles.

The action of these little glands is not intermittent but continuous, and sweat is incessantly exhaled in the form of vapor or *insensible perspiration.* It is only when the body becomes much heated, as by exercise or otherwise, or in disease, that the perspiration manifests itself to the eye or touch. The total quantity of the fluid exhaled by the skin is subject to the greatest variations, according to temperature, moisture, exercise, quantity and quality of food and drink taken, etc. The average person in health gives off through the skin ordinarily between one and two pounds or pints of fluid daily, a quantity almost equal to that excreted by the kidneys. When animals are completely covered with an impermeable coating, as by varnishing the surface, death always takes place; and the story is current among physiologists, that a child who was covered with gold leaf in order to represent an angel in the ceremonies attending the coronation of Pope Leo X., died a few hours after the coating had been applied.

Nails.—The nails resemble the hairs very closely in many respects, and are but altered portions of the

epidermis. We speak of the root and the body of the nail, the *root* being that portion toward the trunk, and situated beneath the skin. The *body of the nail*, which represents the section of the hair within the follicle, is the remaining attached portion, while the free extremity of the nail, which custom and convenience remove frequently, corresponds to the free extremity of the hair. The *matrix* of the nail is that upon which the nail rests, and to which it is firmly attached. Nails grow from their roots just as do the hairs, and only slide over their matrix or bed, so that injuries to the matrix need not cause a disfigured nail, other than of the portion directly injured, whereas injury or disease at its root will generally cause a destroyed or deformed nail.

PHYSIOLOGY OF THE SKIN.

The physiology of the skin is important to remember, both in its relations to dermatology and to general medicine. As a great emunctory organ, it shares very largely with the lungs and kidneys the office of removing the superfluous water from the system. The skin and kidneys each excrete somewhere between one and two pounds of liquid daily, while the lungs, perhaps, not over one half or two thirds as much. It can be readily understood, therefore, how "a check of perspiration" can act harm-

fully by throwing extra work upon other organs. These three great agents for removing or eliminating water from the system act in harmony, and interchange their duties to a greater or less degree. Thus, in cold weather, when the skin perspires less, the kidneys are more active, as are also the lungs; in summer, again, when the perspiration may be profuse, it is a common observation to find the urine more scanty. This vicarious action of these organs is frequently taken advantage of in medicine, as when, in kidney disease, we cause the skin to act profusely and remove water which threatens dropsy; also in pneumonia, where power for work of the lungs is seriously impaired, the action of the skin is excited in like manner. Again, in many diseases of the skin great advantage results from remedies which increase the action of the kidneys and bowels.

The results of physiological research show that very considerable impression may be made upon the general system by simply acting upon the skin, as by baths, the cold pack, etc.; advantage may often be taken thus of the absorbing power of the skin for the introduction of remedies through this channel, and nutrition also may be greatly affected by fatty inunctions. Failure in the action of the kidneys, bowels, lungs, and liver, deranges the balance of the system, and may result in disease of any organ which has work thrown upon it which it cannot perform; we must believe, therefore, that

the skin undoubtedly may become diseased in the effort to produce its secretions from imperfectly elaborated blood, as well as from attempting to take its nourishment from that which has been insufficiently prepared in other portions of the economy.

The beneficial effects often observed in skin diseases from the use of mineral waters in bathing and drinking, must not be attributed to their action upon the diseased tissues alone; the skin as an organ is often affected favorably, and performs its work better, and the kidneys and bowels are stimulated to action by the mineral ingredients. Even when used externally alone, other organs are more or less influenced by the mineral water, as it has been definitely shown that the urine can be affected, both in its liquid and solid elements, by means of baths and wet packs.

CHAPTER III.

NOMENCLATURE AND CLASSIFICATION OF DISEASES OF THE SKIN.

VERY much confusion, and much of the difficulty attending the study of dermatology, has resulted from the number and variety of terms which have been applied to these diseases, by different authors. Many affections have been called by quite different names, and often the same designation has been given to diseases which are quite distinct; not only has every author or teacher felt at liberty to coin new terms, or to propose changes, but in some instances they have not even faithfully adhered to one name, but have made repeated changes, both in those employed by themselves and others.

Happily at the present time this error of past study is appreciated by the majority of those who write and teach this branch, and the desire is becoming more and more fixed and manifest to use dermatological names that are not only plain, but such as can be adhered to by those of every nation and school. It would be useless to attempt to enter upon, much more to give severally, the various views which have been promulgated in times past,

and the different names and systems which have been put forward, only to last until the death of their producer, or not to find acceptance beyond his immediate circle. The dermatology of to-day looks back upon the heaps which have been piled up, only to endeavor to avoid the repetition of such follies; and all who have this branch deeply at heart, are seeking for unity of thought on this subject.

Inasmuch as different names may be given to different diseases in various countries, the Latin language has become more and more adopted for the expression of exact science; and in order that many of the names which have been used and known from antiquity may not be changed, the older Greek terms are retained as far as possible, while the Latin is further used for secondary names and expletives. The following of this plan in various countries, together with the publication of photographic and other representations of diseases, will soon harmonize dermatological thought, and render the study of cutaneous maladies much more easy.

The classification of diseases of the skin, while not of the utmost importance, still often serves as an aid to the understanding of the branch. Various efforts have been made at forming a clinical classification; but the plans have varied so much, according to the views of the writer, that no two have very greatly resembled each other, and few authors have quite agreed upon the subject. With

the study of pathological anatomy, however, diseases of the skin, as well as those of other organs, have come to be placed in certain groups according to the pathological changes which have taken place. In a very rough way, this was first proposed many years ago by Plenck, and followed by Willan and others, who divided skin diseases according to the gross features exhibited, and arranged them in eight orders, as follows:

I. Papulæ.	V. Pustulæ.
II. Squamæ.	VI. Vesiculæ.
III. Exanthemata.	VII. Tubercula.
IV. Bullæ.	VIII. Maculæ.

But the insufficiency of this plan becomes manifest when it places in the same group diseases which not only have no relation to each other but which are widely dissimilar in appearance. Thus, scabies and variola appear together, because both exhibit pustules; varicella and eczema, because vesicles may be seen in both; acne and lupus, because tuberculous masses are developed in each, and so on.

In 1845, Hebra published his attempt at a classification of diseases of the skin on a basis of pathological anatomy, and his plan, simplified by himself and others, has since been followed more and more, until now a considerable portion of the dermatological world acknowledges it as the best basis upon

which to arrange dermatological thought. The following classification is based entirely upon this plan, although considerably simplified from that first proposed by Hebra, and that given in his text-book.

CLASSIFICATION OF DISEASES OF THE SKIN.

CLASS I. **Morbi cutis parasitici.** Parasitic Affections.
" II. **Morbi glandularum cutis.** Glandular Affections.
" III. **Neuroses.** Neurotic Affections.
" IV. **Exsudationes.** Exudative or Inflammatory Affections.
" V. **Hæmorrhagiæ.** Hæmorrhagic Affections.
" VI. **Hypertrophiæ.** Hypertrophic Affections.
" VII. **Atrophiæ.** Atrophic Affections.
" VIII. **Neoplasmata.** New Formations.

Class I. Morbi cutis parasitici. Parasitic Affections.

A. VEGETABLE.

1. Tinea trichophytina (or ringworm) (*parasite—Trichophyton tonsurans*).
   - corporis (or tinea circinata).
   - capitis (or tinea tonsurans).
   - barbæ (or sycosis parasitica).
   - cruris (or eczema marginatum).
2. Tinea favosa (or favus) (*parasite—Achorion Schœnleinii*).
3. Tinea versicolor (or pityriasis versicolor) (*parasite—Microsporon furfur*).

B. ANIMAL.

1. Phthiriasis (or pediculosis)
   - corporis
   - capitis
   - pubis

   (*parasite—Pediculus*).
2. Scabies (or itch) (*parasite—Acarus scabiei*).

Class II. Morbi glandularum cutis. Glandular Affections.

A. DISEASES OF THE SEBACEOUS GLANDS.

I. Due to faulty secretion or excretion of sebaceous matter.
1. Acne sebacea
   - oleosa
   - cerea
   - cornea

   (or seborrhœa).
2. Acne punctata
   - nigra (or comedo).
   - albida (or milium).
3. Acne molluscum (or molluscum sebaceum).

II. Due to inflammation of the sebaceous glands with surrounding tissue.
4. Acne simplex (or vulgaris).
5. Acne indurata.
6. Acne rosacea.

B. Diseases of the Sweat-Glands.
- I. As to quantity of secretion.
  1. Hyperidrosis.
  2. Anidrosis.
- II. As to quality of secretion.
  3. Bromidrosis.
  4. Chromidrosis.
- III. With retention of secretion.
  5. Dysidrosis.
  6. Sudamina.

Class III. Neuroses. Neurotic Affections.

1. Zoster (herpes zoster or zona).
2. Pruritus.
3. Dermatalgia.
4. Hyperæsthesia cutis.
5. Anæsthesia cutis.
6. Dystrophia cutis (or trophic disturbances).

Class IV. Exsudationes. Exudative or Inflammatory Affections.

A. Induced by Infection or Contagion.
1. Rubeola (or measles).
2. Rötheln (or German measles).
3. Scarlatina.
4. Variola.
5. Varicella.
6. Vaccinia.
7. Syphilis.
8. Pustula maligna.
9. Equinia (or glanders).
10. Diphtheritis cutis.
11. Erysipelas.

B. Of Internal or Local Origin.
- I. Erythematous.
  1. Roseola.
  2. Erythema — simplex. multiformе. nodosum.
  3. Urticaria.
- II. Papular.
  4. Lichen — simplex. planus. ruber. scrofulosus.
  5. Prurigo.
- III. Vesicular.
  6. Herpes — febrilis. iris. progenitalis. gestationis.
- IV. Bullous.
  7. Hydroa.
  8. Pemphigus — vulgaris. foliaceus.
  9. Pompholix (or cheiro-pompholix).
- V. Pustular.
  10. Sycosis (or folliculitis pilorum).
  11. Impetigo.
  12. Impetigo contagiosa.
  13. Ecthyma.

B. Of Internal or Local Origin.—*Continued.*

- VI. Multiform, *i. e.*, erythematous, papular, vesicular, pustular, etc.
  - 14. Eczema.
  - 15. Dermatitis
    - calorica.
    - venenata.
    - traumatica.
    - medicamentosa.
- VII. Squamous.
  - 16. Dermatitis exfoliativa (or pityriasis rubra).
  - 17. Psoriasis.
  - 18. Pityriasis capitis.
- VIII. Phlegmonous.
  - 19. Furunculus (furunculosis).
  - 20. Anthrax (or carbuncle).
  - 21. Abscessus.
  - 22. Hordeolum.
- IX. Ulcerative.
  - 23. Onychia.
  - 24. Ulcus
    - simplex.
    - venereum.

Class V. Hæmorrhagiæ. Hæmorrhagic Affections.

1. Purpura
   - simplex.
   - rheumatica (or peliosis rheumatica).
   - hæmorrhagica.
2. Hæmatidrosis (or bloody sweat).
3. Scorbutus.

Class VI. Hypertrophiæ. Hypertrophic Affections.

A. Of Pigment.
1. Lentigo.
2. Chloasma.
3. Melanoderma.
4. Morbus Addisonii.
5. Nævus pigmentosus.

B. Of Epidermis and Papillæ.
1. Ichthyosis.
2. Keratosis pilaris (or lichen pilaris).
3. Cornu cutaneum.
4. Clavus.
5. Tylosis (or callositas).
6. Verruca
   - vulgaris.
   - senilis.
   - necrogenica.
   - acuminata.

C. Of Connective Tissue.
1. Scleroderma.
2. Morphœa.
3. Sclerema neonatorum.
4. Elephantiasis (Arabum).
5. Dermatolysis.
6. Frambœsia (or yaws).

D. Of Hair.
1. Hirsuties.
2. Nævus pilosus.

E. Of Nail.
1. Onychogryphosis.
2. Onychauxis.

Class VII. Atrophiæ. Atrophic Affections.

A. Of Pigment.
1. Albinismus.
2. Leucoderma (or vitiligo).
3. Canities.

B. Of Corium.
1. Atrophia cutis
   - propria.
   - linearis (or striæ atrophicæ).
   - maculosa (or maculæ atrophicæ).
2. Atrophia senilis.

C. Of Hair. { 1. Alopecia. 2. Alopecia areata. 3. Trichorexis nodosa. 4. Fragilitas crinium (or atrophia pilorum propria).

D. Of Nail. Onychatrophia.

Class VIII. Neoplasmata. New Formations.

I. Benign New Formations.

A. Of Connective Tissue. { 1. Keloid. 2. Fibroma (or molluscum fibrosum). 3. Xanthoma (xanthelasma or vitiligoidea).

B. Of Fatty Tissue. Lipoma.

C. Of Granulation Tissue. { 1. Lupus { erythematosus. vulgaris. } 2. Scrofuloderma. 3. Rhinoscleroma.

D. Of Blood Vessels. { 1. Nævus vasculosus. 2. Telangiectasis (or angioma).

E. Of Lymphatics. Lymphangioma cutis.

F. Of Nerves. Neuroma cutis.

II. Malignant New Formations.

1. Lepra { maculosa / tuberculosa / anæsthetica } (or elephantiasis Græcorum).
2. Carcinoma.
3. Epithelioma.
4. Sarcoma { idiopathicum. / pigmentosum (or melanosis).

CHAPTER IV.

RELATIVE FREQUENCY OF DISEASES OF THE SKIN: STATISTICS OF EIGHT THOUSAND CASES.

THE relative frequency and importance of the different diseases of the skin may be in a measure judged from statistics, although they often fail to represent the true frequency of the affections recorded. Thus, very few of the febrile diseases of the skin appear here, such as measles, scarlatina, and small-pox, because they comparatively seldom fall under the observation and care of the specialist; and many of the more trivial skin disorders occur also in much fewer numbers than in reality, as such cases rarely apply for treatment. Again, certain of the most common diseases, eczema and acne, are not as largely represented as they might be, inasmuch as many cases of eczema are left untreated, and acne is very generally disregarded.

The statistics here presented are from eight thousand cases observed by the writer in private practice, and in the Demilt Dispensary and the Out-patient Departments of the New York and Bellevue Hospitals. It was thought best to exclude a large number seen in other institutions, as records

of them had not been kept with sufficient uniformity and accuracy.

ANALYSIS OF 8,000 SKIN CASES.

DISEASE.	Private Practice.			Public Practice.			Grand Totals.
	Male.	Female.	Total.	Male.	Female.	Total.	
Abscessus	....	1	1	9	7	16	17
Acne	150	370	520	169	284	453	973
Adenoma	....	....	....	4	1	5	5
Alopecia	46	23	69	13	7	20	89
Anthrax	5	1	6	3	2	5	11
Atrophia cutis	2	2	4	2	....	2	6
Bromidrosis	....	1	1	2	....	2	3
Cacatrophia cutis	....	1	1	....	....	....	1
Canities	1	1	2	....	1	1	3
Carcinoma cutis	....	2	2	....	3	3	5
Cellulitis	....	....	....	1	2	3	3
Chloasma	2	30	32	....	10	10	42
Clavus	....	....	....	3	4	7	7
Congestio folliculorum	....	....	....	....	1	1	1
Cornu cutaneum	1	....	1	1	....	1	2
Dermatalgia	1	1	2	....	....	....	2
Dermatitis	22	14	36	69	73	142	178
Dysidrosis	2	1	3	1	3	4	7
Ecthyma	....	1	1	10	7	17	18
Eczema	529	349	878	873	928	1,801	2,679
Elephantiasis Arabum	....	1	1	....	2	2	3
Ephilide	....	1	1	....	....	....	1
Epithelioma	26	19	45	24	17	41	86
Erysipelas	3	3	6	31	54	85	91
Erythema	16	24	40	27	61	88	128
Excoriationes	....	....	....	2	1	3	3
Folliculitis capitis	....	....	....	1	....	1	1
Furunculus	15	13	28	58	65	123	151
Hæmophilia	....	....	....	1	....	1	1
Herpes	28	19	47	56	55	111	158
Hydroa	5	1	6	2	1	3	9
Hyperæsthesia cutis	....	....	....	2	....	2	2

ANALYSIS OF 8,000 SKIN CASES.—*Continued.*

DISEASE.	Private Practice.			Public Practice.			Grand Totals.
	Male.	Female.	Total.	Male.	Female.	Total.	
Hyperidrosis	5	3	8	11	8	19	27
Hypertrichosis	1	23	24	....	....	....	24
Ichthyosis	10	5	15	7	6	13	28
Impetigo	....	....	....	5	8	13	13
Impetigo contagiosa	2	5	7	7	12	19	26
Impetigo herpetiformis	....	2	2	....	....	....	2
Keloid	3	4	7	4	....	4	11
Lentigo	1	2	3	....	....	....	3
Lepra	4	....	4	2	....	2	6
Leucoderma	9	8	17	2	1	3	20
Lichen	29	15	44	43	61	104	148
Lupus	11	21	32	7	30	37	69
Lymphadenoma	....	1	1	....	....	....	1
Lymphangioma	....	....	....	1	1	2	2
Macula pigmentosa	....	....	....	2	....	2	2
Miliaria	....	....	....	1	....	1	1
Morbilli	1	3	4	....	1	1	5
Morphœa	1	4	5	1	2	3	8
Nævus	4	12	16	3	7	10	26
Neuroma	....	....	....	2	....	2	2
Onychatrophia	....	....	....	2	....	2	2
Onychia	2	4	6	6	5	11	17
Papilloma	3	....	3	2	....	2	5
Papulo-vesicular eruption	....	....	....	1	....	1	1
Paronychia	....	....	....	1	4	5	5
Pemphigus	3	7	10	2	5	7	17
Phlegmon	....	....	....	1	....	1	1
Phthiriasis	3	8	11	155	231	386	397
Pityriasis	5	12	17	4	14	18	35
Pompholix	4	....	4	....	....	....	4
Prurigo	....	1	1	....	....	....	1
Pruritus	23	17	40	55	57	112	152
Psoriasis	77	54	131	92	110	202	333
Purpura	9	2	11	12	16	28	39
Rhinoscleroma	....	1	1	....	....	....	1

Psoriasis appears next, and sixth on the list, with 333 cases, or a percentage of but 4.16, showing it to be much less common than is usually supposed; the proportion of cases in private and public practice was about the same.

Urticaria is probably much more common than these statistics indicate, inasmuch as many patients with other diseases will give a history of being subject to this eruption, for which they will seldom seek relief; it formed but 2.49 per cent. of all cases.

The remainder, even of the more commonly known eruptions, appeared in still smaller proportions, under two per cent., and a number of cutaneous maladies occurred but once or twice among the entire number of cases analyzed.

Zoster or shingles formed but a trifle over one per cent. of the 8,000 cases, although the eruption is so startling and often so painful that those affected generally apply for relief. Scabies was very rarely seen, but 118 times in public and ten times in private practice; lupus formed but 0.86 per cent.; purpura but 0.49 per cent.; ichthyosis, 0.35 per cent.; nævus, 0.33 per cent.; leucoderma, 0.25 per cent.; pemphigus, 0.21 per cent.; keloid, 0.14 per cent.; morphœa, 0.10 per cent.; and scleroderma but 0.05 per cent.

In regard to sex the patients were remarkably evenly divided, 3,897 males to 4,103 females in the total numbers; but in individual diseases great differences will be found. Thus in acne the females

are double the number of the males, while with alopecia there were twice as many males as females. Chloasma is seen to be almost exclusively an affection belonging to females, there being forty cases to two of males, while sycosis belongs to the male sex. In eczema the sexes are pretty evenly divided, 1,402 males to 1,277 females; with lupus the females were almost three times as many as the males. Psoriasis presented almost an exactly equal number of both sexes, 169 males, 164 females.

CHAPTER V.

DIAGNOSIS.

THE diagnosis of individual diseases of the skin will be treated of in connection with each affection, but a few general rules or considerations may be here noted. Diseases and lesions of the skin should always receive very careful inspection and study, for, however simple the case may appear at first sight or in any of its elements, it is quite possible for other portions of the eruption to exhibit quite different features; and unless disease is taken as a whole, and also unless it is understood in each and all of its parts, no perfectly correct diagnosis will be arrived at, and consequently no intelligent therapeusis.

The first consideration, therefore, has to do with the examination of the patient. This should always be made in a very general and complete manner; the practitioner should never be satisfied with inspecting only a portion of the eruption present, but must insist upon viewing the whole of the diseased surface, and it is also important to examine the neighboring healthy skin as well. It is, likewise,

very necessary to observe and note carefully the distribution of the eruption, for, as will be developed elsewhere, different affections have different seats of predilection, and modes of development and arrangement of their elements, which will often aid very considerably in the study of the case. As instances may be mentioned the proneness of eczema to affect the flexor surfaces; while psoriasis, ichthyosis, and lichen are found by preference upon the extensor surfaces of the body. In studying the distribution of the eruption it is also well to bear in mind the tendency which certain eruptions have for a particular form of distribution; thus, the inclination to circular arrangement of the lesions of syphilis, the disposition of the vesicles of zoster along the lines of nerve tracts, and the peculiar grouping of the vesicles of herpes febrilis and preputialis, are all very striking, while the rather symmetrical development of tinea versicolor, and the circular form and irregular location of patches of ringworm are likewise characteristic.

It is important always to discover the primary lesions of an eruption, the form in which it makes its first appearance; for, although when well developed it may or may not have characters which are distinct, the earlier phases of its evolution will very generally point towards the proper diagnosis. The primary elements are generally discoverable near or outside the main line of eruption, if at all, although

occasionally they will reappear very characteristically in portions already traversed by the disease. Sometimes the earliest stages are not present at the time, all of the lesions having passed into a more fully developed or retrograde state; but the previous condition may then be generally learned by very accurate questioning.

In making the diagnosis of an eruption, there are two methods by which the end can be arrived at; these should be employed together, in order to attain any true accuracy. The first is by recognizing the actual characters or features of disease present, and their likeness to a well known lesion or malady of the skin; the second is by exclusion, namely, by considering other eruptions which the one present might be mistaken for, and excluding each in turn, by the absence of some particular, distinctive feature belonging to it. As remarked before, both methods must be employed where the case is at all doubtful; indeed, until one is familiar with the subject, this process of mental logic should be associated with every case.

There is nothing really so very special or peculiar in the lesions which are found upon the skin, or in the diagnosis of the diseases which affect the integument. The pathological processes which occur here are precisely the same as those which take place in other portions of the body; congestion, inflammation, the results of altered nutrition, as hypertrophy

and atrophy, together with the development in the tissues of new formations, as cancer, etc., constitute, with the alterations caused by parasites, the lesions which are found upon the skin. The variety of the changes produced by these processes, results in considerable confusion to one unaccustomed to look upon them; but a little careful observation will soon distinguish the elements of disease belonging to the various eruptions and processes, and by thus analyzing and separating the lesions found upon the skin a diagnosis can generally be made with certainty. True it is, that the gross features and grouping of elements seen in some skin diseases enable the practiced eye to make a probable diagnosis in many instances at first sight; but as successful treatment depends absolutely upon accuracy of diagnosis, the greatest care should be exercised in determining this exactly.

Various agencies effect certain pathological changes in the skin structure, which have received the name of *lesions;* each of these exhibits to the eye, and often to the touch, features which are distinctive, and which, if recognized, establish with more or less of certainty the nature of the disease process present. It is essential, therefore, to fix firmly in the mind the elemental lesions, and to connect them with the various diseases with which they are associated.

We will first give a few brief definitions of the

terms used to express the parts or elements of which eruptions are composed; these are spoken of as *primary lesions*, and *secondary lesions*, the first the direct results of disease, the second, a more or less consequent condition.

Of each of these there are eight, as follows:

Primary Lesions.	Secondary Lesions.
1. Macula; spot, macule.	1. Tinctura; stain.
2. Papula; papule.	2. Squama; scale.
3. Vesicula; vesicle.	3. Crusta; crust.
4. Bulla; bleb.	4. Infiltratio; infiltration.
5. Pustula; pustule.	5. Fissura; fissure.
6. Pomphus; wheal.	6. Excoriatio; excoriation.
7. Tuberculum; tubercle.	7. Ulcus; ulcer.
8. Phyma; tumor.	8. Cicatrix; scar.

First, of the *primary lesions of the skin*, eight in number.

1. *Macula.* Spots or macules are of various sizes, colors, or shapes; not elevated or depressed. These may be congestive, hemorrhagic, pigmentary, or from extraneous causes.

Congestive maculæ are seen in *dermatitis*, *eczema erythematosum*, *erysipelas*, *erythema*, *leprosy*, *nævus vasculosus*, *roseola*, *rötheln*, *rubeola*, *scarlatina* and *syphilis:* hemorrhagic maculæ occur in *purpura*, *scorbutus*, and *insect bites:* pigmentary maculæ are found in *Addison's disease*, *chloasma*, *ephelis*, *leucoderma*, *melanoderma*, *morphœa*, *nævus pigmentosus*, *scleroderma*, *syphilis*, and *xanthoma:* maculæ from

extraneous cause are seen in *nitrate of silver staining*, and from parasites in *tinea trichophytina* and *tinea versicolor*.

2. *Papula.* Papules or pimples are small solid elevations of the skin, inflammatory or neoplastic.

Inflammatory papules occur in *acne*, *dermatitis*, *eczema papulatum*, *lichen*, *phthiriasis*, *prurigo*, *purpura*, *scabies*, *syphilis*, *urticaria papulosa*, and *variola*: neoplastic papules are seen in *keratosis pilaris*.

3. *Vesicula.* Vesicles, or small water blisters, consist of small elevations of the epidermis, with clear fluid contents.

Vesicles appear in *dermatitis*, *dysidrosis*, *eczema*, *herpes*, *scabies*, *sudamina*, *varicella*, *variola*, and *zoster*.

4. *Bulla.* Blebs, or larger water blisters, are so called from their resemblance to bubbles on the surface of agitated water. Blebs may be of any size from that of a split pea upward.

Bullæ are observed in *hydroa*, *leprosy*, *pemphigus*, *pompholix*, *scabies*, and *syphilis infantile*.

5. *Pustula.* Pustules represent small, round elevations of the epidermis, containing pus.

Pustules are seen in *acne*, *dermatitis*, *eczema*, *ecthyma*, *equinia*, *furunculus*, *impetigo*, *impetigo contagiosa*, *phthiriasis*, *pustula maligna*, *scabies*, *sycosis*, and *variola*.

6. *Pomphus;* a wheal. The flat, solid, slightly elevated lesions of urticaria or nettle rash are called wheals, or pomphi.

In addition to *urticaria*, wheals may also appear about the *bites of insects.*

7. *Tuberculum ;* a tubercle. This term, which has no relation to tubercles of the lungs, refers to small solid elevations of the skin, larger than papules.

Tubercles occur in *acne, carcinoma, clavus, epithelioma, fibroma, lepra, lupus, lymphangioma, rhinoscleroma, sarcoma, scrofuloderma, syphilis,* and *verruca.*

8. *Phyma ;* a tumor. This is a large swelling in or upon the skin, and may be of any size above that of a tubercle. Generally masses larger than a cherry are spoken of as tumors.

The following diseases may present lesions classed as tumors: *carcinoma, dermatolysis, elephantiasis, fibroma, keloid, lepra, lipoma, rhinoscleroma, sarcoma,* and *syphilis.*

The *secondary lesions of the skin,* eight in number, are as follows:

1. *Tinctura ;* a stain. A discoloration of the skin more or less permanent, left after a preceding lesion.

Stains may remain for a varying period after all inflammatory affections; they are most commonly seen after *acne indurata, ecthyma, furunculus, lupus, phthiriasis, psoriasis,* and *purpura,* and after certain lesions of *syphilis,* and *ulcus* they are apt to be permanent.

2. *Squama ;* a scale. A portion of the epidermis more or less diseased and detached.

Scales occur in *dermatitis exfoliativa*, *eczema*, *ichthyosis*, *lupus*, *pemphigus foliaceus*, *pityriasis*, *psoriasis*, *rubeola*, *scarlatina*, *syphilis*, *tinea favosa*, *tinea trichophytina*, and *tinea versicolor*.

3. *Crusta;* a crust. A dried mass, generally of pus and epidermis, the product of some disease of the skin.

Crusts follow inflammatory and destructive lesions; they are principally seen in *dermatitis*, *eczema*, *ecthyma*, *favus*, *furunculus*, *herpes*, *hydroa*, *impetigo*, *lepra*, *lupus*, *pemphigus*, *phthiriasis*, *scrofuloderma*, *sycosis*, *syphilis*, *vaccinia*, *variola*, and *zoster*.

4. *Infiltratio;* infiltration; a thickening and hardening of the skin from disease. In this the normal suppleness and elasticity are lost, and the skin readily breaks with each movement of the part.

Infiltration and hardening of integument is seen in *eczema*, *epithelioma*, *lepra*, *morphœa*, *rhinoscleroma*, *scleroderma*, and *ulcus*.

5. *Fissura;* a fissure, or crack in the skin, consequent upon previous infiltration.

Fissures appear principally in connection with the infiltration occurring in *eczema*, *lepra*, *psoriasis*, and *syphilis*.

6. *Excoriatio;* excoriation and ulceration of the surface, generally caused by scratching.

Excoriations or scratch marks are observed in connection with *eczema*, *phthiriasis*, *prurigo*, *scabies*, and *urticaria;* also in consequence of *bites of insects*.

7. *Ulcus;* an ulcer. An excavation in the skin made by disease. Ulcers generally extend deep into the true skin, and leave a scar.

Ulcers may occur in *anthrax*, *carcinoma*, *chancroid*, *dermatitis*, *eczema*, *ecthyma*, *epithelioma*, *equinia*, *furuncle*, *herpes preputialis*, *lepra*, *lupus*, *onychia*, *pustula maligna*, *sarcoma*, *scleroderma*, *scrofuloderma*, *syphilis*, and from *traumatic causes* and *varicose veins*.

8. *Cicatrix;* a scar. A new growth made up of hard, fibrous tissue, which replaces that lost by disease or injury.

Scars may follow ulcerative lesions in the diseases just mentioned, and are also seen in *acne*, *atrophia cutis*, *favus*, *sycosis*, *vaccinia*, *varicella*, *variola*, and *zoster*.

All the lesions occurring on the skin, will be found to be made up of these elements, sometimes of a single one alone, far more often of several combined. Especially do we continually find those belonging to the two classes intermingled, namely, primary lesions combined with their results, or secondary lesions of the skin, and the one may be quite as characteristic of the disease as the other. Thus, the pearly, imbricated scales of psoriasis, and the yellowish greasy scales of seborrhœa are both sufficiently pathognomonic. The crusts of impetiginous eczema and of syphilis, the scars of certain diseases,

and the infiltration of eczema, all point clearly to the affections to which they belong. In certain affections we see little except the secondary lesions, as in phthiriasis, where the scratch marks or excoriations are almost pathognomonic; and in favus the entire external lesion is made up of crusts and scales. It will be observed that many diseases appear under several of these lesions, according to the variety or stage of the eruption.

To observe diseases of the skin satisfactorily, it is necessary that there should be good light; for this purpose daylight is almost essential, and plenty of it, preferably from a northern exposure. It is almost impossible to judge correctly of the color and character of skin lesions by artificial light.

CHAPTER VI.

ETIOLOGY.

THE etiology of various diseases of the skin has always been a matter of considerable difference of opinion among writers, but the subject is being cleared up more and more under the light of modern science and accurate study, and many points are now placed beyond the reach of controversy. In former periods it was supposed that all cutaneous disorders were manifestations of an internal poison or evil, a *materies morbi*, seeking exit by this channel: hence the general name given to this class of affections was *eruptions* (from the Latin e-rumpo, I burst forth), as is also signified in the Greek term, eczema (from ἐκζέω, I boil over). This idea has by no means entirely disappeared, either from the public or professional mind; in few, if any instances, however, is it correct.

Modern study has demonstrated a certain group or number of diseases of the skin to be entirely due to the local effect upon the integument, or its appendages, of vegetable parasites which find a habitat there; certain other lesions on the skin are wholly due to other local irritants, as the burrowing of the

scabies insect, or the scratching practiced for the relief of pediculi, or from other causes. Still other conditions recognized as disease are the direct results of heat and cold, or mechanical and chemical irritants, as injury, dye stuffs, poison ivy, etc.; another group of affections are known to be purely local alterations in the skin tissue, such as fibroma, epithelioma, keloid, and the like. Yet other diseases have most intimate internal relations, such as acne, eczema, and urticaria; others, finally, as syphilis and the exanthemata, are the result of specific poisons.

It will be impossible, therefore, to enter here fully into the subject of the causation of diseases of the skin, but the matter will be briefly referred to in connection with each malady. A few general considerations, however, may be of value.

While some diseases are definitely due to a local cause, as a parasite, and others to a specific poison, in regard to a large number the etiology is by no means fixed, and both internal and external causes, as also individual and family tendencies, are of importance in their production. These may be briefly alluded to.

1. *Internal Causes.*—Food, which is wrong either in quantity or quality, is a frequent cause of skin disorder, as will be dwelt upon in the chapter on diet and hygiene. Derangements of the internal organs, as indicated by dyspepsia, constipation, and urin-

ary disturbance, likewise sexual disorders and nervous derangements, are frequently very closely connected with skin lesions; and the permanent cure of the latter often depends upon the successful relief of the former. Debility is also an important element to consider in this connection; and infancy, dentition, puberty, pregnancy, and the menopaus have all relations to cutaneous maladies. The internal administration of some medicines, as quinine, iodide and bromide of potassium, and copaiba, and other drugs, is sometimes followed by eruptions of peculiar nature.

2. *External Causes.*—Parasites, animal and vegetable, heat and cold, chemical and vegetable poisons, and mechanical irritation, as by friction, harsh underclothing, and above all by scratching, are fruitful causes of skin lesions, and must all be looked for. In some instances they are the sole efficient cause, and the eruption fades away when they are removed; in other cases they are but a single factor, and the real cause is found in the internal or individual state. Thus, local agents may excite an eczema in one predisposed thereto; but the same irritation practiced upon a dozen other individuals will excite but a temporary inflammation of the skin. The lesions of late syphilis are frequently determined as to their seat by a local injury.

3. *Individual and Family Tendencies.*—Some individuals are far more prone to have skin affections

than others, even as the lungs or kidneys are more often affected in one person than in another; those with light complexion and hair are more inclined to skin diseases than the dark. Again, families present the same peculiarity; some affections are hereditary to a greater or less extent, such as syphilis, leprosy, cancer, and psoriasis; eczema sometimes appears to be inherited, but in reality this is rarely the case. The gouty, strumous, and nervous habits or states, whether hereditary or acquired, are of importance in connection with this subject.

Other elements to be taken into consideration as bearing upon etiology, are the seasons, climate, occupation, age, and sex, as will be developed in later pages.

CHAPTER VII.

CLASS I. MORBI CUTIS PARASITICI.—PARASITIC AFFECTIONS.

THE first class of diseases in our classification embraces eruptions having a well recognized and easily defined cause: namely, the existence in or upon the skin of parasites, whose presence and irritation cause the phenomena of disease. These parasites are recognized to be of two kinds—vegetable and animal. The first group embraces three distinct kinds or varieties of disease; the second, two.

The vegetable parasites producing the three diseases are supposed to be distinct one from another; they have not been found to be interchangeable in causing disease. The three vegetable parasites are the *trichophyton tonsurans*, causing the varieties of tinea trichophytina or ringworm, the *achorion Schönleinii*, causing tinea favosa or favus, and the *microsporon furfur*, inducing tinea or pityriasis versicolor. The action of these parasites is a purely local one; that is, the lesions are produced by the local action of the vegetable growth upon and in the elements of the skin, and not by absorption or by any action of the parasite upon the blood or the system at large.

When the eruption is communicated to another person, or develops elsewhere on the same individual, it is always by direct or indirect transference of the germs of the parasite to and upon the affected spot.

1. **Tinea trichophytina.** Synonym: *Ringworm.* The growth of the parasite trichophyton produces quite different appearances as it affects the different portions of the body, and four distinct varieties of eruption from it are recognized: Namely, *tinea trichophyton corporis*, — *capitis*, — *barbæ*, and — *cruris*, affecting respectively the general surface and extremities, the scalp, the bearded face, and the genital region. Although they are really the same disease, they will best be described and treated of separately, so different are the appearances at times presented.

TINEA TRICHOPHYTINA CORPORIS.—Synonyms: *Ringworm of the body; Tinea circinata; Herpes circinatus.* This includes the eruption due to this parasite upon all parts other than the hairy scalp, the bearded face, and the genital region; it is very commonly seen upon the face and hands of children. It is characterized by the development of a small red spot which enlarges peripherally with considerable rapidity, so that in two or three days or a week it may attain the size of a circle half an inch or more in diameter; as it increases at the border, it has a tendency to clear in the center. The margin is sharply defined, slightly raised, of a well marked

red, and covered with a small amount of easily removed scales. Sometimes, in delicate skins, a few minute vesicles will form on a large spreading border (herpes circinatus); this, however, is rare. When at all well developed, the center of the patch is of a dirty yellowish color with more or less scaling. There may be one or several patches; I have counted as many as one hundred and three on one child; they may attain some size, and by coalescing may form larger patches, or, the center clearing, gyrate forms may be produced by the red margins. They generally give rise to but little physical discomfort other than a slight itching.

Diagnosis. Tinea circinata is most likely to be confounded with *psoriasis*, *squamous eczema*, *syphilis*, and *erythematous lupus*. The history of the case, and the rapid development of the circles of ringworm, with a tendency to clear in the center, will differentiate them. The diagnosis is established with certainty in all the forms of ringworm by the discovery in the scales and hairs, of the parasite trichophyton tonsurans. The examination is best made by scraping the surface with a dull knife and placing the débris in a little liquor potassæ and glycerine, upon the slide of a microscope, and examining it with a power of from two to three hundred diameters. The mycelium appears as minute, slightly greenish tubes with parallel sides and rounded extremities, often branching, and the spores as minute rounded bodies,

of even size, refracting the light strongly: some little care is necessary to distinguish the latter from fatty globules.

TINEA TRICHOPHYTINA CAPITIS. Synonyms: *Ringworm of the scalp; Tinea tonsurans; Herpes tonsurans; Trichophytosis.* Ringworm of the scalp is not always as easy of recognition as might be supposed, and in cases which have lasted any length of time the diagnosis may be very difficult. The eruption begins, as upon the face and body, with a small red point, which increases peripherally in a more or less circular form, until it has attained almost any size. When first presented there are commonly seen one or more patches with a diameter of from half an inch upwards, upon which the hairs are broken and stubbed, and the surface covered with a dirty grayish scaling; the history will be given that these were noticed quite recently, and mainly by the loss of hair. Sometimes instead of these dried patches there is an inflamed condition, and each point of attack of the parasite will be marked by a small pustule or mass of inflammation, surmounted by a crust; but generally other non-inflamed patches will also be visible.

Sometimes the tendency to inflammation will be so great, that in place of single small points, the entire patch, half an inch or more in diameter, will become inflamed, boggy, slightly elevated above the skin, and tender upon pressure. When the dis-

ease has lasted a length of time, each hair is seen to stand in a little well of pus, from which it can be extracted without pain; and a gummy, purulent fluid exudes from the hair follicles on moderate pressure. This form or condition of the disease has received the name of *tinea kerion.*

On attempting to extract the hairs from a non-inflamed patch of ringworm, the stump readily crumbles in the forceps without drawing the root with it; if the patch is scraped with a dull knife, many broken bits of hair will be found with the scales, which are seen to be filled with the spores of the parasite. This broken condition of the hair which is seen on these patches, may be readily discovered by passing the finger lightly over the surface at a slight distance from the scalp.

In certain old cases the distinctive features of ringworm may be lost, and the scalp is moderately scaly, with thin hair, and among the long hairs may be found many which are broken and stubbed, as in the patches previously described.

Diagnosis.—Ringworm of the scalp may be mistaken for *eczema*, *psoriasis*, *seborrhœa*, and perhaps *syphilis.* The stubbed and broken condition of the hairs, and the presence of the parasite, are sufficient for the diagnosis.

TINEA TRICHOPHYTINA BARBÆ.—Synonyms: *Ringworm of the beard; Parasitic sycosis; Barber's itch; Tinea barbæ; Sycosis parasitica.* In the earli-

est stages of ringworm of the beard, the eruption does not differ essentially from that observed elsewhere on the body; there is first a small red point, which extends peripherally in circular form, while the center tends to clear, and becomes covered with a moderate amount of scaling. The eruption may remain in this condition without giving rise to much irritation, but in long standing cases, it occasions deep seated inflammation of the follicles of the part, with the production of boggy masses, corresponding to that condition just described as tinea kerion.

Diagnosis.—The sharply defined ring, or portion of a ring, which can often be made out, red and more or less scaly, with the history of an increase from a small point, indicates the character of the eruption, together with a discovery of the parasite by a microscopic examination of the scales and hairs. But the eruption may be confounded with *eczema*, *true sycosis*, *seborrhœa*, and *pityriasis*, also possibly with *psoriasis*, *acne*, or *syphilis*. Eczema always manifests its character of an imperfectly defined margin, shading out into healthy tissue, and without the tendency to clear in the center, and generally exists elsewhere, or spreads out on to the neighboring parts. True sycosis presents single isolated pustules surrounding hairs, rather than the large boggy masses of the parasitic disease.

TINEA TRICHOPHYTINA CRURIS.—Synonyms:

Ringworm of the thigh and genital region; Chinese, Burmese, and Tokeleau ringworm; Eczema marginatum. The fourth and last variety of the eruption due to the presence and growth of the trichophyton tonsurans, is that about parts which are kept warm and moist, as in the genital region and axillæ, and presents features which at times render it very difficult of recognition. But the development of the eruption here is the same as elsewhere; namely, from a small point which enlarges peripherally, with a tendency to clear in the center. When presented for treatment, however, one seldom sees small points or even rings; but generally there is a more or less reddened surface with a sharply defined margin, which is red, slightly elevated above the skin, and from which a few scales can be scraped. This margin, which is generally not more than a line in width, is of a reddish color, while the surface behind is of a brownish, dirty yellow hue, sometimes quite red and inflamed from previous treatment; occasionally small, newly developing points will be found within the larger area or outside of the main line of disease. On the male the eruption on the scrotum exactly corresponds to that upon the thigh; generally the two thighs and the sides of the scrotum are affected unequally. In the region around the anus, and upon the buttocks where the parts come in contact, the eruptions on the opposing surfaces are seen to correspond to each other, and to present the

sharply defined margin, and soggy, perhaps whitened tissue within.

The itching from ringworm in the genital region is generally most intense, and the suffering may be very great. These cases often last a great length of time, being relieved by treatment but not cured until the accurate diagnosis is made.

Diagnosis.—The eruption in this location is mainly liable to be mistaken for *eczema*, and *intertrigo;* often the two eruptions are combined, either being first developed ; the sharply defined margin, and the more or less tendency to clear in the center, should always attract attention. Eczema in this region is worse towards the crotch, and tends to become lighter towards the periphery; simple chafing or erythema intertrigo has the character of eczema in a lighter degree.

Prognosis.—The prognosis of all the forms of ringworm is good ; there is a definite local cause, and if it can be removed the disease will surely get well. But the prognosis varies a good deal, with the form and location of the disease, and the individual patient. Ringworm of the body always yields more or less readily. On the scalp and beard it frequently remains uncured for months and years, because of the great difficulty of reaching the parasite, deep in the follicles; in the genital region, if properly treated, it is perfectly manageable.

Treatment. — This is comparatively simple, al-

though the details are difficult of execution in some cases. A number of home remedies are of value in ringworm of the body, such as laying a penny wet in vinegar on the spot, ink, iodine, castor oil, etc. Any of the mercurial ointments, preferably the red precipitate or citrine ointment (Formulæ 90, 92, 93, 98), well rubbed in, will suffice for the removal of the disease on the body. Oleate of mercury in five or ten per cent. solution is also valuable, but there is a possibility of salivating with the too free use of it. Sulphurous acid, if thoroughly applied, is one of the best and most cleanly parasiticides; to be of value, however, it must be absolutely fresh, for by contact with the air a portion of the sulphurous acid evaporates, while the remainder is converted into sulphuric acid, which is irritating to the skin and useless to destroy the parasite. For this purpose an unopened package should be obtained, and a small bottle repeatedly filled therefrom. It is to be applied thoroughly to the skin, two or three times a day, undiluted, unless it appears too irritating, and the effect may be heightened by covering the part with oiled silk. Sometimes additional local stimulation is necessary, as with the compound tincture of green soap (Formula 39); if too much irritation has been set up, soothing treatment will be required. (Formulæ 25, 26, 83, 84, 85). Ringworm in the genital region is similarly treated.

Ringworm of the scalp and beard, when recent,

may be removed by the means previously described, but when deep seated, it is very difficult for the remedy to reach the fungus in the follicles, and the extraction of the hairs becomes necessary. If, however, we attempt to pull out the hairs from a tolerably well developed patch of ringworm, they break off, and considerable care will be necessary to insure their removal; they must be drawn perpendicularly to their axis, and repeated attempts will often be made before success is obtained. When depilation is practiced, it is always well to rub into the surface afterwards a solution of bi-chloride of mercury (Formula 45); but this should not be intrusted to the patient, for serious accidents have been reported from the careless use of this remedy. In older patches, where the hairs have less tendency to break, and where large surfaces are to be treated, the method of wholesale depilation described under favus may sometimes be resorted to with advantage.

The plan of destroying the parasite by inflaming the skin, which has recently found many advocates, consists in powerfully stimulating the scalp with such irritants as croton oil, repeatedly applied until an artificial *tinea kerion* is produced, and a muco-purulent fluid exudes; the loose hairs are then easily extracted and the inflammation is allowed to subside under soothing treatment, when the disease is frequently found to be cured. This plan must be adopted with caution, as it is not safe to treat too

large a portion in this manner, and sloughing has occurred from its careless employment.

The internal treatment of ringworm may be briefly disposed of. As moss does not grow upon the bark of perfectly healthy trees, with plenty of air and sunlight, so parasitic diseases seldom flourish upon individuals in perfect health, as has been repeatedly shown by failures in attempts at inoculation. It is always desirable, therefore, especially in cases which have lasted any length of time, to investigate most carefully the general health, and to prescribe intelligently therefor. Arsenic will not cure the disease, but may be required as a nerve tonic, or as an improver of nutrition, in connection with other remedies; the same may be said of many other agents. An eczematous habit or diathesis will often be found in ringworm cases; in eczema marginatum constipation aids the congestion and slight irritation of those parts which give the proper nidus for the development of the parasite; see treatment of eczema.

Tinea favosa. Synonyms: *Favus; Porrigo favosa; Crusted ringworm; Honeycombed ringworm.*

The second vegetable parasitic disease is due to the growth in and upon the skin of the *achorion Schonleinii.* This is a comparatively rare affection in this country; it occurring only 31 times in our 8,000 cases. The parasite may affect any and every part of the surface of the body, but is more commonly

seen or recognized upon the scalp. Here it is really often severe and obstinate, because of the great size and depth of the hair follicles into which the fungus penetrates. Upon the rest of the surface, where there are no large hairs, the eruption is very superficial, and much more easily cured. The characteristic lesion of favus consists of a slightly raised, circular, cup-like mass, of a bright yellow sulphur color, commonly seated around a hair, with a depression in its center. When first appearing, the little cups are exceedingly minute, perhaps not much larger than the head of a small pin; but if left undisturbed, they may grow to the size of a quarter of an inch or more in diameter; they are easily dislodged, and the surface beneath presents a red, glazed appearance. The mass thus removed is found to consist entirely of the spores and mycelium tubes of the parasite, which may be readily recognized under the microscope, when ground up with a little water or glycerine, and magnified 300 diameters.

But this characteristic cupped appearance of favus is not seen in every case as presented for treatment; more commonly there are yellowish masses, having somewhat the appearance of dried pus, around and among the hairs, which may become darkened by dust or blood. In cases which have existed for some time a large portion of the scalp may become affected, and exhibit the disease in various degrees of severity, in cups or simply dried

scaling. This superficial development, however, is by no means the only portion of the disease; the parasite penetrates the hair and along its root-sheaths, so that when greatly affected, the hairs may be very easily extracted, and do not readily break off. The disease is far more destructive in its tendency than tinea capitis, and may not only destroy the growth of the hair, but also the follicle itself, and the eruption may be followed by great cicatrization; in old cases patches of scar tissue of greater or less extent are always found, slightly reddened, and perhaps with some scattered hairs upon them. The disease always interferes very greatly with the nutrition of the hair, and renders it dry and harsh.

Favus sometimes appears on other parts than the scalp, and if left undisturbed yellow cups will form, and around them there is generally a ringed, erythematous, scaly surface, very closely resembling ordinary ringworm. In rare cases a large portion of the body may be affected with favus. Favus is always seen in those exhibiting ill health, and generally occurs in strumous subjects. It is questionable, however, whether the disease itself, although purely a local one, has not something to do with lowering of the health and vitality of the individual.

Diagnosis.—This is not ordinarily difficult. No other disease exhibits the characteristic cups; and if doubt exists the microscope will always decide. *Pustular eczema* of the scalp, some cases of *syphilis*

and *psoriasis* are the only diseases with which it can be confounded.

Treatment.—The treatment of favus differs with its situation ; upon the scalp, owing to the great size of the hairs and depth of the follicles, it is generally most rebellious, unless the treatment be very thoroughly and faithfully persisted in until perfectly cured.

External applications if lightly applied are of very little service, because they will not penetrate the depth of the follicle; and although the external manifestations are removed, it will crop out again when left to itself. Two methods of treatment are therefore applicable: the one of removing the hair and allowing the parasiticide to penetrate into the open follicles; the other of causing an inflammation, which, by its intensity, shall destroy the life of the parasite. Depilation is most to be relied upon, and if thoroughly and efficiently performed is followed by success. The hairs may be extracted by the forceps, but this is a slow procedure when a large surface is involved ; and the methed recently employed by the writer for extracting the hairs *en masse* is a much more ready and more certain method. This consists in having sticks prepared of a very adhesive material (Formula 20), which are made to adhere to the hairs, and then pulled off. The hair should be cropped to about one-eighth of an inch long, over the part to be treated ; the sticks are then melted on the end in a spirit-lamp,

and applied with a slight rotary or twisting motion, to work the short hairs into their substance. After they have cooled, they are removed by bending them over and pulling the hairs in succession, with a slight twisting motion. The sticks are prepared for further use by burning the hairs in the flame and wiping the end firmly upon a sheet of paper.

After depilating by this or other means, a solution of bi-chloride of mercury (Formula 45) is to be well rubbed into the skin by the operator. To be very effective depilation should be practiced every day or so until all the affected hairs are removed; it is well to give the patient an ointment (Formulæ 92, 93, 102), to be well rubbed into all the affected parts night and morning.

In epidermic favus the cups are simply picked out and the surface well rubbed with pure sulphurous acid, the oleate of mercury 5 per cent., or one of the mercurial ointments (Formulæ 92, 93, 102). Most cases of favus should also have some internal treatment of a tonic character (Formulæ 52, 53, 58, 59), in order that the general health may be raised to the standard which will resist the development of the parasite.

Tinea versicolor. Synonyms: *Pityriasis versicolor; Chloasma?; Liver-spots; Chromophytosis.* The third and last vegetable parasitic disease of the skin is that due to the presence of the *microsporon*

furfur. This is seen first and mainly on the chest, in the form of yellowish-brown, slightly scaly patches of various sizes and extent. Sometimes the eruption consists of very many small points, at other times of patches which may cover a very considerable area. The back is almost always affected at the same time, though to a less degree, and the eruption may occasionally spread under and upon the arms, and even upon the neck and face; and in rare cases upon the lower limbs. Usually it is quite symmetrical; when there is much sweating the surface will be almost free from scales, and may be quite red. There is often slight itching accompanying it. Upon scraping the patches and placing the scales beneath a microscope, groups or masses of round spores are seen and more or less mycelium among the epidermal scales.

This eruption has considerable tendency to recur, and in many cases it lasts for years, being partially removed by treatment, and then relapsing, owing to the failure to entirely reach and destroy the parasite.

Diagnosis.—This is comparatively easy; the eruption may be mistaken for *chloasma*, *leucoderma*, *ringworm*, *erythematous eczema*, and *seborrhœa*, This eruption was formerly called chloasma, but this term is now given to a pigmentary affection, having no connection with the one now described, nor has the present eruption any connection with liver dis-

order. True chloasma occurs on the face, and seldom, if ever, in a manner to resemble tinea versicolor. In leucoderma there are white patches upon a yellowish or brown base, whereas in the parasitic disease now described we have yellow patches upon a normal skin. Seborrhœa of the chest presents circular patches, which are more red in color; the scales are very greasy, and the parasite is not found under the microscope.

Treatment.—The treatment is often ineffectual in permanently removing the eruption, because not persisted in long enough. It consists of the application of a parasiticide, of which there are many of value. Sulphurous acid in solution will remove the eruption very quickly, also Vlemingkx' solution (Formula 37), and a few sulphur vapor baths will aid greatly; preparations of mercury, as the oleate, citrine ointment diluted, and others, are also effectual; also solutions of corrosive sublimate, four grains to the ounce, with a little ammonia; likewise tarry preparations, well rubbed into the skin, such as the compound tincture of green soap, or the liquor picis alkalinus (Formulæ 39, 40, 42). It is also well to have the patient wash the surface very freely, and for this purpose even yellow bar soap may be used to advantage.

CHAPTER VIII.

CLASS I. MORBI CUTIS PARASITICI.—PARASITIC AFFECTIONS—(*Continued.*)

Animal Parasitic Affections.

TWO distinct diseases of the skin are recognized as due to animal parasites, although there are a number of parasites which may at times attack the human integument. These two principal ones are *phthiriasis* and *scabies.*

1. **Phthiriasis.** Synonyms: *Pediculosis; Morbus pedicularis; Lousiness.* Three distinct forms of pediculi are found upon the human skin, occupying severally and chiefly the body, the head, and the pubis. Hence we speak of three forms of this affection or condition, namely, *phthiriasis corporis, phthiriasis capitis*, and *phthiriasis pubis.*

PHTHIRIASIS CORPORIS.—The body louse has as favorite seats of occupation the regions about the shoulders and hips, and here the greatest number of skin lesions will be usually found. These consist of inflamed and torn papules of various sizes, together with abundant scratch marks or *excoriations.* There

is also a curious lesion seen, which is caused by the manner in which the insect obtains its nourishment; this consists of a very minute red point, not elevated above the surface of the skin, and is in reality the end of a small plug of blood occupying a dilated follicle, into the bottom of which the insect has penetrated with its proboscis in order to suck blood. On stripping the patient with phthiriasis corporis, one generally finds none of the parasites upon the body, but they may commonly be found in the folds of the clothing about the parts affected, and here likewise are laid the eggs or nits, which may be seen by careful inspection, as minute, oval, whitish bodies, adherent to the fibres of the clothing. In debilitated subjects and in long standing cases the itching may give rise to so much scratching that very considerable lesions result; even ulcerated points, covered with thick crusts.

PHTHIRIASIS CAPITIS exhibits many of the results of scratching and inflammation upon the scalp, in the form of excoriations covered with more or less crusts. The itching is generally quite considerable, and the patient unconsciously tears off the crusts, continually making the eruption worse. In severe cases a large portion of the scalp may be the seat of inflammatory action, and the hairs, accordingly, may be matted together by the exudation; the glands of the back of the neck become enlarged, and the scalp emits a fetid odor. The pediculi may generally be

seen moving upon the hairs, and their nits are found attached to the same.

PHTHIRIASIS PUBIS.—The true cause of itching about the pubis will sometimes pass long unrecognized. In some cases there will simply be a moderate amount of itching about the genital region, with the occasional development of scratched papules, but in other instances all these parts may be very much torn, and a considerable eruption exist. The pediculus pubis or *crab louse* differs from the preceding varieties in being much smaller and more round; it holds very firmly by means of its crab-like claws to the hairs, and is generally found firmly attached to the hair, near its exit from the follicle, and with its body in close contact with the surface. Thus it may readily escape recognition, and appears more like a little scab or crust than a living insect. When it is dislodged, it still holds firmly to the hair, and is with some difficulty removed. It deposits its eggs or nits upon the hairs of the part, and generally they can be found, as minute white specks, attached to them. This crab louse may also infest the hairs of the axillæ, eyebrows, eyelashes, and even the hairs of other parts, as the beard.

Diagnosis.—Upon the scalp the eruption resembles *eczema*, *pustular syphilis*, and possibly *psoriasis;* but the inflammation caused by lice, and the resulting crusts and the itching, are generally far

greater than those in these eruptions. In some cases, however, very few lesions will be seen, and the scalp may be kept so clean that no pediculi can be discovered. But, however great care is exercised, some nits may almost always be found on the hairs when the eruption is due to lice. Phthiriasis of the body may be mistaken for many eruptions, *eczema*, *scabies*, *pustular syphilis*, also for *pruritus* and *prurigo;* but the peculiar locations of the principal lesions over the region of the shoulders and about the loins should excite suspicion; and a careful examination will generally reveal the marks of the finger nails in the torn papules and streaks, and great care will reveal the hemorrhagic specks alluded to. Phthiriasis pubis may also resemble simple *eczema* and *scabies;* but the finding of the parasite renders the diagnosis clear.

Many of the cases of phthiriasis of the body and genital regions were formerly called pruritus and prurigo; these terms, however, belong to entirely distinct diseases; pruritus, or itching, is a symptom of phthiriasis, as also of many other skin affections.

Treatment.—For phthiriasis of the scalp simple cleansing alone does not suffice, but some agent must be employed which is directly a parasiticide. The most effective and sure application is that of ordinary petroleum or kerosene oil, the commoner the better, as it contains a larger proportion of the volatile elements, which are destructive to the life

both of the parasite and its nits. The head should be thoroughly soaked with it two or three times during a day, and left wrapped up in a cloth for twenty-four hours. At the end of this time it is thoroughly washed, and if there are any excoriations, they may be treated with a little zinc or white precipitate ointment (Formulæ 83, 84, 85, 91.) One such thorough application is generally sufficient for the complete cure of the disease; the nits will then be found to be loosened upon the hairs, and to come out with tolerable readiness; it is never necessary to cut the hair in these cases. Other treatment may be used, as an infusion of stavesacre, as also white precipitate ointment in full strength. Lotions of bichloride of mercury should not be entrusted to patients for this purpose, as they are more or less dangerous.

Phthiriasis corporis is very easily remedied. The patient is simply to take a warm bath with soap and water, after which fresh clothes, which have been thoroughly boiled and ironed with extra care, are put on; the parasites adhering to the clothing are thus removed, and the clothes which are taken off should be thoroughly baked or boiled. Some care should also be exercised that other articles of clothing which the patient has worn be similarly treated, lest lice develop anew from the nits attached to them, however carefully removed from other garments

Phthiriasis pubis is sometimes a little difficult of removal because patients do not make sufficiently thorough applications. Any of the mercurial ointments (Formulæ 90, 92, 93) are quite sufficient for the destruction of the parasites, as also ammoniated mercury well dusted on; the danger of salivation should always be borne in mind when the simple unguentum hydrargyri is employed. In very rare cases it is necessary even to shave the parts affected with pediculi pubis; but this need seldom be the case if care is exercised.

It need hardly be stated that none of the varieties of pediculi can by any possibility appear beneath the skin, or affect the system at large, as is so often popularly supposed. They are air-breathing insects, and remain wholly upon the surface of the body, and the lesions caused are due to the irritation from them and the consequent scratching.

2. **Scabies.** Synonym: *The itch.* This affection, quite different from the conditions just described, is due to the boring into the skin or rather beneath the epidermal layer, of a minute insect, the *acarus* or *sarcoptes scabiei.* The female does the mischief, she burrowing for the purpose of laying her eggs, which may be found in a little track which she leaves behind her, called the *cuniculus* or furrow. The male is said never to penetrate the skin. This little track which the female leaves forms the path-

ognomonic sign of the disease; it consists of a minute brownish black line, generally curved, which appears as though a bit of dark colored sewing silk had been run beneath the surface. If the skin is washed or wiped, this, instead of being removed, will stand out still clearer, and will be seen to terminate at a point of inflammation, a papule, vesicle, or pustule, or to pass over the surface of one of these. The point of inflammation is caused by the presence of the insect, and she will be found at that extremity of the *cuniculus* or *furrow;* behind her a number of oval eggs in various degrees of development may be observed microscopically, and between them minute black particles, which latter are supposed to be the fæces of the insect. Very recent cases may not present cuniculi, if time has not elapsed for a sufficient burrowing of the insect, but papules or vesicles may form immediately on her penetrating the epidermis.

The lesions of scabies are peculiarly multiform, exhibiting papules, vesicles, and pustules often of some size, also scratch marks and crusts, each case varying greatly according to its duration and the condition of the individual in regard to health, cleanliness, etc. In light cases, or in very healthy subjects, papules predominate, with a few vesicles when the skin is delicate; whereas in broken down constitutions and in children, very severe inflammatory lesions may result, with large pustules; or,

these may be scratched, and large, superficial, raw patches form, covered with more or less crusts.

There are certain places of predilection which aid very greatly in recognizing the disease. The first in importance is the region about the fingers, especially where they join on the back of the hand; next, on the inner surface of the wrists, also the soles of the feet, and about the malleoli in children. In males there will almost invariably be found one or more lesions about the penis and scrotum, partaking of the same inflammatory character; and often cuniculi or furrows of the insect may be found here very perfectly developed. In the female the region of the nipple is very often affected, also the flexor surface of the forearm and the fold in front of the axilla in both sexes; the face and head generally escape.

The itching of scabies may be quite severe, but is generally of a mild form, and bearable; it is even pleasant compared to that in severe eczema. There will almost always be found the history of contagion in scabies, and rarely will one member of a family be attacked alone, especially if there are children.

Scabies is becoming a comparatively rare disease in this country; among the 8,000 cases analyzed it only formed 0.39 per cent. in private, and 2.18 per cent. in public practice. Occasionally it appears in public institutions, and many cases are seen together, and the disease may be difficult to eradicate. In some countries, as in Scotland, it is much more fre-

quently met with, and in statistics from Glasgow it forms about twenty-five per cent. of all cases of skin disease. During our late war it was quite common, and was often spoken of as the "army itch."

Diagnosis.—As may be judged, the eruption of scabies may be confounded with very many affections of the skin; *eczema*, *lichen*, *phthiriasis*, *prurigo*, *pruritus*, and *urticaria papulosa*; between papular and vesicular eczema of the hands, and mild recent scabies, the diagnosis is often very difficult.

Prognosis.—This is good; of however long standing, the disease may be rapidly and thoroughly cured if proper and complete treatment is carried out. The system is never affected, and there is no harm in removing the disease as quickly as possible.

Treatment.—This is accomplished purely by external means. As an indication of the plan to be followed we may mention the rapid cure of the disease practiced in the Hôpital St. Louis, in Paris. The patient is first very thoroughly rubbed all over from head to foot with soft soap, especial attention being paid to the regions most apt to be affected: this process occupies about half an hour. The patient then takes a warm bath, remaining in it for half an hour or so, in the meantime scouring the skin thoroughly. On coming out of the bath, he is thoroughly rubbed from head to foot with an ointment containing sulphur (Formulæ 100, 101), and this process also takes half an hour at least, particular

attention being given to the portions mentioned as most commonly affected. The clothes, which have been thoroughly baked while the patient was in the bath, are now put on, and it is expected that the disease is thus entirely cured. The idea of the first friction is to open the furrows, as far as possible removing the eggs which would hatch out; these, with the male insect which could be thus reached, the bath then removes from the skin. The sulphur ointment being then thoroughly rubbed into all the parts, enters the open cuniculi and completes the destruction of the insects. The clothes having been baked at a high temperature, all the insects which may have lodged upon them are destroyed.

Sometimes cases of scabies are over-treated, or are so severely irritated by the measures used for the destruction of the parasite, that an artificial papular eruption results, which more or less imitates the disease. In such cases a soothing treatment may be employed for a few days, such as is suitable for an eczema, and the case is then left a little without treatment. If there are still the elements of scabies remaining they will then become apparent.

CHAPTER IX.

CLASS II. MORBI GLANDULARUM CUTIS.—GLANDULAR AFFECTIONS.

THE diseases belonging to this group are divided into two classes, namely: those relating to the sebaceous glands, and those affecting the sweat glands.

The diseases of the *sebaceous glands* comprise six distinct varieties, several of which may often be found more or less associated in the same individual. Of the sebaceous diseases we find two orders: First, those due to faulty secretion or excretion of the glands: *acne sebacea*, *acne punctata*, *acne molluscum;* and second, those exhibiting inflammation of the sebaceous glands with the surrounding tissue: *acne simplex*, *acne indurata*, *acne rosacea.*

1. **Acne sebacea.** Synonyms: *Seborrhœa; Seborrhagia; Steatorrhœa; Fluxus sebaceus.* Three distinct forms of this variety of functional sebaceous disorder are recognized: *acne sebacea*, or *seborrhœa oleosa*, *cerea*, and *cornea.*

ACNE SEBACEA OLEOSA.—In this the skin is more oily than natural, and has a greasy, shiny appear-

ance. When the scalp is affected the hair has an unctuous appearance, and emits a nauseous odor. Upon the face and the forehead it may exist to such an extent that the oily secretion will stand in drops upon the skin.

ACNE SEBACEA CEREA.—This dry form of seborrhœa is characterized by the presence of greasy masses of scales or crusts, of a yellowish or greyish-brown color, which tend to adhere to the skin. Upon the nose and cheeks it may present a very disagreeable and annoying coating: upon the scalp the secretion may either remain quite greasy and accumulate, so that it can be removed as a yellowish, crusty mass, with the finger nail; or, it dries into scales, which fall continually upon the clothing, and thus constitutes a large share of the cases ordinarily called *dandruff* or dandriff. Commonly a large portion of the scalp is affected, and loss of hair ensues to a greater or less extent. Seborrhœa of the scalp often resembles closely a dry *scaly eczema*, a *pityriasis*, or *psoriasis*.

ACNE SEBACEA CORNEA is characterized by the development, principally upon the face, of horny sebaceous masses and concretions which, when forcibly removed, are found to have projections into the orifices of the sebaceous glands; sometimes their removal causes slight bleeding. This condition may remain, especially on elderly persons, for a length of time, and may result in epithelioma.

Treatment.—The constitutional treatment of these functional subaceous disorders is essentially that of inflammatory acne to be described later. Locally stimulating and astringent applications are called for; on the scalp tannin and white precipitate ointment (Formulæ 87, 90, 91) are most serviceable, with an occasional shampoo with tar soap, or green soap in solution (Formula 38); later, mildly stimulating lotions are called for, and still later those with cantharides (Formulæ 49, 50, 51). The local treatment of seborrhœa of the face is practically that of the other forms of acne; with the addition of a bismuth and white precipitate ointment (Formula 91).

2. **Acne punctata.** Two forms of disease are recognized which are due to retention of the sebaceous matter, namely: *acne punctata nigra*, or comedo, and *acne punctata albida*, or milium.

ACNE PUNCTATA NIGRA, or comedo, represents the little black specks seen upon the face, commonly called *black-heads*, *worms*, or *grubs*. These consist of hardened plugs of sebaceous matter contained within the cavity and ducts of the glands; the blackened end is probably due to dust from the atmosphere, although this has been disputed of late. The foundation for the popular idea that these plugs, which can be squeezed out, are themselves worms or insects, lies in the fact that there is in reality a very minute animal which infests the se-

baceous glands; it is, however, by no means of such a size as one might imagine. It is called the *demodex* or *steatozoön folliculorum*, and is exceedingly small, being in length from $\frac{1}{150}$ to $\frac{1}{75}$ of an inch, and in breadth about $\frac{1}{300}$ of an inch; but this animal is perfectly harmless and entirely innocent of the disease; a number may be found in a single plug, or again several masses may be examined without finding one.

ACNE PUNCTATA ALBIDA.—Synonyms: *Milium; Grutum; Strophulus albidus.* Milia are the little white specks or bodies often seen in the neighborhood of the eyes, and upper part of the face, and occasionally on other parts of the body. They consist of small collections of sebaceous matter, which may have undergone alteration and calcification, situated beneath a very thin layer of skin; they cannot be squeezed out, as can comedones, and do not always come out, even when the skin is punctured over them.

Treatment.—Comedo calls for the internal and external remedies suitable for ordinary acne, and in addition the expulsion of the contents of the glands by means of firm pressure made over them by means of a small tube with rounded edges and an aperture of sufficient size to admit the plug.

3. **Acne molluscum.** Synonyms: *Molluscum sebaceum; Molluscum contagiosum.* Some little dis-

pute has arisen with regard to the real nature of this disease, but the weight of evidence seems still to connect it with disorders of the sebaceous glands. It is, however, quite a rare affection, and is seldom associated with the other forms of sebaceous disease. It is more common in children than in adults. It consists of small, pearly, or slightly reddened, globular masses, projecting a little from the skin, generally with an opening in their center, from which can be squeezed a cheesy or milky substance. Their common seat is about the face, eyes, and temples, although they may be seen on any part of the body, as on the shoulders and back, and about the genital region.

These little lesions often appear to be contagious, hence the name, molluscum contagiosum; but the real cause of the contagion has never been demonstrated, and inoculations have generally proved fruitless. The prognosis is good, as they may generally be quickly and easily removed.

Treatment.—This consists in removing the little tumors with the curved scissors, the base being afterward thoroughly burned with a stick of nitrate of silver.

SEBACEOUS CYSTS or wens belong in this group, and appear as small, globular, movable tumors, with semi-fluid contents, projecting slightly above the surface, covered with normal or slightly reddened skin. It is not sufficient to evacuate their contents,

as the sebaceous sac will pretty certainly refill; they should be removed entire or enucleated, or when already opened, the sac can be drawn out with the forceps, and by a little care can be entirely removed.

The next three varieties of acne are due to inflammation of the sebaceous glands and surrounding tissue, namely, *acne simplex*, *acne indurata*, and *acne rosacea*. These, although defined and classified as separate eruptions, are really but varieties of one and the same affection, and their nature and treatment will be considered together; they are also very closely associated with the two forms of acne first described. These five varieties of sebaceous diseases are constantly seen variously intermingled, and occasionally all of them may be distinctly made out on the same individual.

4. **Acne simplex.** Synonyms: *Acne vulgaris; Acne disseminata; Acne juvenilis.* This represents the eruption commonly seen upon the faces of young people, consisting of scattered papules or pustules, generally associated with the black points of acne punctata, or *comedones*. The disease presents different degrees of severity in different subjects, from a few, irregularly scattered papules or pustules, to a very badly marked face. The nature of the disease is undoubtedly inflammation about

sebaceous glands, which is generally the result of hardened sebum retained in them; often the end of the sebaceous plug will be seen in the center of an inflamed point, which subsides as soon as it is expressed. Quite as often this is not seen externally, but the cavity of the gland is blocked, and when the point is freely opened a minute solid mass escapes with the blood and pus.

5. **Acne indurata.** This name is given to cases where the lesions are larger, forming indurated masses, from the size of a small pea even up to that of a small chestnut, generally of an indolent character, purplish, and slow to suppurate. While the acutely tender points of acne simplex have to do, as a rule, with but a single blocked and inflamed gland, in acne indurata a series of glands and circumscribed masses of tissue are involved, and the single elements partake rather of the characteristics of dermic abscesses than of the lesions ordinarily recognized as acne. These are often very indolent, lasting weeks or months, and giving little or no pain upon pressure; as a rule they have not pustular summits, but require to be lanced before pus is discovered; when they are opened the contents are found to be of a grumous character, and sometimes fetid.

6. **Acne rosacea.** Synonyms: *Gutta rosea; Couperose.* The preceding forms of acne are almost al-

ways seen in young persons, whereas this form of sebaceous disease belongs to older periods of life. The characteristic location of the eruption is about the central portion of the face included in a line dropped from the external angles of the eyes to the chin; the surface is more or less evenly reddened, perhaps with some dilated blood-vessels, and with many or few separate papules or pustules. There is a heat and burning in the part, with redness and flushing upon the slightest excitation, also after eating and drinking, or on entering a hot room.

Acne simplex and indurata may affect the back, shoulders, and chest, as well as the face, and in some instances may cause very great scarring; acne rosacea affects only the face.

Diagnosis.—While it is usually easy to recognize acne, in certain instances the diagnosis may be difficult. Acne simplex may resemble a *papulo-pustular syphiloderm*, *papular eczema*, *impetigo*, and also eruptions produced by *iodine* and *bromine;* acne indurata may be mistaken for a *tubercular syphiloderm* and *furunculus;* and acne rosacea is sometimes difficult to distinguish from an *erythematous* and *papular eczema*, a flat *tubercular syphiloderm*, and *lupus erythematosus* and *vulgaris.*

Etiology.—The causes of acne are found always in a lowered vitality, very commonly associated with constipation and assimilative disorders, and in fe-

males with sexual disturbances. Acne frequently improves greatly after marriage, although it is not rare to find quite severe cases in those who are married and have had children.

Treatment.—To be successful, the treatment of acne must embrace both constitutional and local measures. The constitutional treatment includes diet, hygiene, and internal medication. Certain articles of food almost invariably produce acne in some individuals; the articles having this special tendency are, buckwheat, pastry, hot bread, nuts, cheese, chocolate, fried substances, and excess of sweets and starches; it is generally necessary to cut off many of the so-called luxuries of life: among them, wines and beer, also sweet and rich articles of food. Exercise is all-important, and the proper care of the skin by bathing and otherwise, must never be neglected.

There is no one internal remedy which will have any great and permanent effect upon all cases of acne; arsenic will not cure the disease. The measures to be used are those directed principally to the restoration of perfect health, and to the removal of assimilative and nutritive debility often shown by constipation and dyspepsia, and sexual distubances. The constipation is to be met by measures which induce healthful activity of the chylopoiëtic viscera, and not simply by repeated pugatives or by mineral waters; the pill of aloes and iron (Formula

66) will be found of great service, if used carefully and intelligently, as described in connection with eczema. For the dyspepsia, the most varied measures may be required; a cup of hot water, taken half an hour before eating, will often be of the greatest assistance. In a large number of cases of acne, however, alkalies will be found to yield the best results, combined with various vegetable remedies (Formulæ 53, 55, 56, 57). In a certain number of cases, the acne will depend almost entirely upon pure debility, and powerful tonics will be called for (Formulæ 52, 58, 59). Arsenic may act as an adjunct, later in the treatment of the disease; but it is almost useless to give it until other elements have been treated. In some cases uterine disturbances will seem to be the cause of the continuance of the eruption, but in quite a share of these instances the removal of the portal congestion, which may give rise to both the uterine derangement and the acne, will be all sufficient to remove the disease.

The local treatment of acne is varied, and ofttimes the measures which are suitable to one case will prove harmful or of no avail in another. If stimulation is resorted to, it should be active, sharp, and perfect, followed by suitable soothing remedies. In a large share of the cases, slightly astringent and soothing lotions will be found of the greatest service (Formulæ 33, 34, 35, 36); it is well where

there is much inflammation, to begin with a very mild application (Formulæ 25, 26), using the sulphur preparations when in a less active condition.

The greatest benefit is observed in all the inflammatory forms of acne from the local use of very hot water, conjoined with other treatment. The water should be employed as hot as the face can bear, applied by means of a handkerchief; this is dipped in the water and held for a few moments to the part, the operation being repeated two or three times, lasting altogether not more than from three to five minutes; after this the suitable lotion is applied and left on all night. The hot water should be used but once a day, but the lotions or other applications may be kept freely applied with advantage. Much gain can also be had by removing the comedo plugs as described, and freely lancing all the inflamed points, the bleeding being encouraged by bathing with tepid water; a single thorough operation can accomplish more than a week or two of other local treatment. Where the disease is indolent, stimulation is required, as with caustic potassa (Formula 16), followed by a soothing ointment, as of zinc (Formulæ 83, 84). It is also advantageous to touch the spots carefully with the acid nitrate of mercury.

DISEASES OF THE SWEAT GLANDS.

Three varieties of disorder of the sweat glands are recognized; 1. As to quantity of secretion;

2. As to quality of secretion; and, 3d. With retention of secretion. The quantity of secretion may be either augmented or diminished; to the former state the name of *hyperidrosis*, and to the latter *anidrosis* is given.

1. **Hyperidrosis.** Synonyms: *Ephidrosis; Excessive sweating.* This condition may be either general or partial; general sweating is observed in certain cachectic diseases, as phthisis, with which dermatology has little to do. The local forms of sweating are very annoying at times, and are frequently presented for treatment; the most common locations are the palms and soles, and axillæ, although other parts of the body may be affected. Hyperidrosis of the palms is readily recognized: on the feet, however, the condition may be quite peculiar. The patient will complain of tenderness of the soles, with more or less burning, which may increase to such an extent that walking and standing become very painful. The sole and the region of the toes is seen to be reddish or pink, and to have a soddened condition; not much moisture can usually be found, as it is readily absorbed by the socks and shoes.

Etiology.—The true causes of increased sweating are not determined, but there is little doubt that it always indicates debility, and generally of a nervous form.

Treatment.—This is both internal and local; in-

ternal treatment should include every measure calculated to restore nervous and general vigor, especially including strychnine, quinine, and arsenic. There is one remedy which has been found to exercise a very marked control upon the secretion of sweat, but which has to be used with caution; this is atropine given internally, and I have seen $\frac{1}{480}$th of a grain at a dose exhibit this power to a striking degree. After a time, however, it seems to lose its effect. Sulphuric acid alone, or administered with quinine is also of very considerable service.

The local treatment consists of astringent remedies, and the local application of belladonna; for sweating of the hands a certain amount of benefit can always be obtained by rubbing half a teaspoonful of the tincture well into the palms. Excessive sweating of the feet can very commonly be controlled by a thorough and constant application of the unguentum diachyli (Formulæ 94, 95); this should be spread on muslin and worn upon the soles night and day continuously for a period of at least from ten days to three weeks, the dressings being changed once or twice daily. Foot baths of infusion of white oak bark, also powders containing salicylic acid (Formula 79), well rubbed into the soles and sprinkled in the socks, are of service.

2. **Anidrosis.** Diminution or arrest of sweating is indicated by a dry, harsh state of the skin (xero-

derma), with more or less exfoliation. It is found in certain cachectic diseases, as in chronic nephritis and cancer, also in ichthyosis, and in general chronic eczema; it is likewise sometimes presented for treatment unconnected with any other apparent disturbance of health. No cause is known. The patient should always be treated in accordance with indications present, as with tonics, more or less alkalies, and the best diet and hygiene. Alkaline baths (Formulæ 1, 2, 3), followed by inunction with oils, the glycerite of starch, or cosmoline (Formula 104), will generally succeed in relieving the condition, though very often perfect restoration of the skin to a healthy condition is almost impossible.

3. **Bromidrosis.** Synonyms: *Osmidrosis; Offensive sweating.* This is generally associated with the first variety of sweat disorder, namely, hyperidrosis; although sometimes there will be an unnatural odor to the perspiration without any apparently great increase. The entire body may emit an offensive smell, but more commonly this is confined to certain locations, more particularly the feet, axillæ, and genital regions. The same measures which are of value in excessive sweating, are generally of service in this condition.

4. **Chromidrosis.** Synonym: *Colored sweating.* This is a curious state, which has been described by

a number of observers, but it is exceedingly rare. Blue and yellow sweat have been recorded, and a number of instances where the sweat appeared red. This latter condition, however, is in reality due to a hemorrhage from the sweat glands, and will be described under hemorrhages, by the name of *hæmatidrosis*. Nothing is known with regard to the etiology, and little with regard to the treatment of chromidrosis. These cases have usually been observed in nervous and hysterical subjects, generally females, and there is strong reason to believe that in some of the instances deception has been practiced.

5. **Dysidrosis.** Some ten years ago Dr. Tilbury Fox described, under this name, what he regarded as a peculiar disease, which he believed to be due to retention of the sweat within the ducts of the follicles, giving rise to vesicles. The condition was observed most frequently upon the hands, and especially upon their backs and between the fingers. The lesions were described as minute vesicles, very deeply seated, and without the surrounding inflammation seen in eczema and scabies. Appearing when fully developed like minute grains of boiled sago beneath the skin, in rare cases this condition continues and increases to such a degree as to form bullæ of some little size; there is always more or less itching with the disease. Shortly afterward Mr. Jonathan Hut-

chison described under similar terms, an affection to which he gave the name of cheiro-pompholix (See Pompholix), and one of the cases which was figured in his atlas was also one of those upon which Dr. Fox had based his description of dysidrosis. Discussion has followed and the subject is by no means yet definitely settled. In regard to certain of these cases there is little doubt but that such a disease as dysidrosis really exists, consisting of the closure of the sweat follicles and retention of sweat within them. This condition may be observed on the hands in warm weather, also upon the tips of the fingers at other times; it is likewise seen about the face as a more chronic affair. Those points upon the face especially may last for a very considerable length of time; when punctured they give exit to a clear, serous, alkaline fluid.

Diagnosis.—This is sometimes very difficult to establish; the eruption especially resembles *vesicular eczema*, *scabies*, and *pompholix*.

Treatment.—Dysidrosis seems to be very definitely connected with nervous depression, and the cases are always more or less controlled by the internal administration of arsenic. Other remedies may also be called for to meet indications, inasmuch as dyspepsia and other conditions may possibly give rise to the eruption. Locally there are no particular indications for treatment other than those called for by the state present. In some cases a considerable

amount of inflammation attends the disease, when soothing and astringent lotions (Formulæ 25, 26) are of real service. In the more chronic cases, the diachylon ointment (Formulæ 94, 95) spread on lint and kept upon the parts will assist greatly in checking the progress of the disease

6. **Sudamina.** Synonym: *Miliaria.* By this term is indicated an acute affection of the sweat glands, characterized by retention of secretion, which is seen especially in connection with certain febrile conditions. It is most characteristically exhibited upon the abdomen during the course of typhoid fever and rheumatism, as minute vesicles with a very delicate covering and perfectly clear contents; there is usually no inflammation around them, and they appear studding the surface as though very small drops of water had been sprinkled upon it. The condition is one which calls for little or no treatment.

CHAPTER X.

CLASS III. NEUROSES.—NEUROTIC AFFECTIONS.

THERE are six affections of the skin which are classed as neurotic, because in them a nerve element largely predominates; these are *zoster*, *pruritus*, *dermatalgia*, *hyperæsthesia cutis*, *anæsthesia cutis*, and *dystrophia cutis*. Additions might be added to this group of such eruptions as erythema, urticaria, eczema, and others presenting nervous phenomena, but these are more properly and definitely arranged in other classes.

1. **Zoster.** Synonyms: *Herpes zoster; Zona; Cingulum; Shingles.* This is an acute inflammatory affection, characterized by the formation of groups of vesicles upon an inflamed and very sensitive surface corresponding to a definite nerve tract, accompanied by more or less neuralgic suffering. Considerable pain may precede the eruption, and this is very frequently supposed to be simple neuralgia; counter-irritation, as by a mustard plaster, will be applied to relieve this, and the eruption will appear shortly after, quite independent, however, of the skin irritation. Zoster is peculiarly and essentially

a neurosis, as the eruption is found to be confined to the area of distribution of certain cutaneous nerves; and post-mortem examinations have demonstrated most conclusively, in many instances, disease of the nerves supplied to the part. The nerve trunk is found reddened and inflamed, and the posterior or sensory ganglion is congested, softened, and succulent.

The eruption of zoster is generally confined to one side of the body; on the chest (zoster pectoralis) or abdomen (zoster abdominalis), it will be found to reach in a band from the middle line posteriorly to the middle line anteriorly. The vesicles are usually in groups, and may run together, forming large bullæ, but generally do not exceed the size of a small split pea. They are quite peculiar, and different from those seen in any other affection, being flat, and having but slight tendency to rupture. The surface between them is reddened and often exquisitely painful to the touch, sometimes presenting papules which have not yet developed into vesicles. When the nerve lesion is seated in the lowest portion of the spinal axis, the eruption will occupy one or the other lower extremity (zoster femoralis). When the nerve inflammation is seated higher up, near the neck, the band of lesions will extend down the arm (zoster brachialis), and may even reach to the tips of some of the fingers. When still higher up in the cerebro-spinal axis, the erup-

tion will be seated on the head, extending behind the ear (zoster collaris), or upon the occiput; occasionally the Gasserian ganglion is affected, and the eruption is distributed over one or more branches of the tri-facial nerve. The supra-orbital branch is most commonly affected, and the eruption then extends upon one side of the forehead, reaching into the hair (zoster ophthalmicus). Sometimes there are groups of vesicles upon the side of the nose or cheek; very rarely the inferior maxillary branch is involved, and the lesion is distributed over the chin.

The peculiarity of the eruption of zoster, which is pathognomic, is that it is confined to one side or half of the body. Popular tradition says that if the eruption extend so as to reach around the entire trunk, the disease proves fatal: the reason for this superstition rests on the fact that ordinarily the eruption cannot thus extend because it occupies only well-defined nerve tracts, which extend only to the median line on either side. In very rare cases there is a simultaneous occurrence of zoster in two regions, and two distinct eruptions may sometimes be observed on the same side of the body, or on opposite sides; if by chance these should occur at the same level, the body might be encircled as has been observed a number of times. As a rule, herpes zoster occurs but once during life, but cases have been recorded where it has recurred, in

one instance, as often as nine times in the same individual.

Etiology.—The immediate exciting cause of zoster is probably exposure to cold, but there seems to be some reason to believe that there is a deeper causation, which at times renders the disease almost an epidemic. Certain it is that numbers of cases will often be observed in close succession or at the same time, and then a considerable interval may elapse before other cases are met with. As previously stated, the skin lesions are the direct result of nerve inflammation, involving the posterior or sensory root of the spinal nerves; they have also been observed as a result of injury of nerve trunks by disease or otherwise.

Diagnosis.—The markedly one-sided character of the eruption, the pain, the hyperæthesia of the region, and the flat, grouped vesicles are quite sufficient to distinguish this from all other eruptions.

Treatment.—Zoster is a self limited affection, the eruption tending to disappear within a week or two weeks. Treatment, however, may be of considerable benefit in shortening the duration of the eruption and lessening the distress from it. Internally, phosphide of zinc with nux vomica (Formula 71) given as early as possible, and repeated every three hours, diminishes the pain and appears to shorten the attack. The internal use of the citrate of iron and quinia in large doses seems also to

be of service. Locally, the greatest relief is obtained by the application of a muslin band, thoroughly dusted with starch, and sewed firmly around the affected portion of the body, the diseased surface being first dusted also with powdered starch. This muslin is applied to the part in such a manner as to make a tight covering over which the clothing plays, and is left untouched until the eruption has disappeared. The comfort afforded by the protection from friction which this gives is very great, and ordinarily no other local treatment will be required; flexible collodion, containing a little morphine, painted over the part, also makes a comfortable dressing. If the pain is sharp, considerable benefit may be experienced from the use of the galvanic current, the negative pole being applied with a moist electrode over the affected surface, and the positive on the spinal column; a mild current, from four to eight cells of a battery of ordinary strength, is all that is required. In some cases electricity will be required for a period after the disappearance of the eruption, to combat the excessive neuralgic pain which remains.

2. **Pruritus.** Itching occurs as a symptom of many diseases of the skin, and may exist as an independent affection either confined to definite areas, or affecting the entire surface. It is in the latter sense that the term pruritus is here employed, to in-

dicate a functional disturbance in the sensory nerves, exhibited alone as itching, without any apparent changes in the skin except those caused by scratching, or by the means employed to give relief.

PRURITUS HIEMALIS.—This name is given to a form of itching of the skin which occurs principally in winter; generally beginning in the autumn, and increasing with the cold, it continues until the advent of warm weather. It may return year by year, and sometimes is the occasion of the severest suffering, the pruritus being generally aggravated toward night. The chief places of itching are the extensor aspects of the arms, the inner surfaces of the thighs, and the calves of the legs; in a case which has lasted some time, numerous scratch marks will be seen.

PRURITUS SENILIS is the name given to the tendency to itch which exists upon the senile skin, and which is dependent in a measure upon the atrophy taking place in the structure of the skin in elderly persons.

PRURITUS VULVÆ.—This will cause the patient to rub and scratch the parts violently in efforts for relief, without seeming to reach the seat of difficulty; often, on examination, nothing will be seen but a chafed and dry surface, the result of rubbing.

PRURITUS SCROTI and PRURITUS ANI may also occur unconnected with other diseases, and give very great distress, no skin lesions being presented.

While, however, itching occurs idiopathically in the region of the anus and genitals, it is more commonly found to be only a sign of a more or less slightly developed eczema, which may have existed unrecognized for years.

Diagnosis.—Considerable care should be exercised in differentiating pruritus as a disease from pruritus as a symptom: itching is a feature of very many diseases, and when lesions on the skin are seen, other than those caused by scratching, their real nature should be determined accurately; itching may occur as a symptom of *eczema*, *lichen*, *phthiriasis*, *prurigo*, *psoriasis?*, *scabies*, *seborrhœa*, *syphilis?*, *tinea cruris*, (eczema marginatum), and *urticaria*. Prurigo is recognized as a distinct, papular disease, entirely separate from pruritus.

Etiology.—No one cause can be assigned for pruritus; it is a functional affection due very frequently to other elements than those existing in the part itself. Pruritus of the vulva is often associated with uterine disease, or with irritating vaginal secretions. Pruritus of the anus may arise from intestinal worms, and, together with pruritus of the scrotum, is often dependent upon oxaluria. The most careful investigation should therefore be made, and every possible means of correcting all aberrations from health employed.

Treatment.—This must vary with the individual and the case. General itching is often benefited by

mercurial cathartics (Formula 65), followed by nitric acid in full doses; quinine will be of much service when in malarial subjects. Gelsemium internally, as mentioned under eczema, gives relief, and chloral and bromide of potassium may be required to induce sleep. Diet seems to exercise some influence over pruritus, and all articles which "heat the system" will pretty certainly aggravate the sufferings of the patient. Alcoholic and fermented liquors, also spices and hot drinks all increase the itching for the time, and probably have more or less influence in prolonging the trouble; tea, when taken in excess, may act prejudicially. Harsh underclothing aids in keeping up the irritation, as also the excessive use of friction to the skin, as by flesh brushes; in a number of instances I have observed that those suffering from general pruritus have previously indulged in Turkish baths to excess.

Locally great comfort is experienced in all forms of pruritus from alkaline baths (Formulæ 1, 2, 3), followed by the application of carbolic acid in ointment (Formula 104). Sponging the surface with carbolic acid lotions with glycerine (Formula 44), or with the liquor picis alkalinus (Formula 42), diluted from ten to twenty times, also lotions with acetic acid and alcohol, give much relief. Electricity, both the direct and induced current, is often of great service.

In pruritus of the vulva very many local applica-

tions will be found of more or less service, and again many may fail utterly. Vaginal injections with carbolic acid, half a drachm or more to the pint of tepid water, are frequently of great value; likewise lotions containing borax, morphia, belladona, aconite, conium, and hydrocyanic acid (Formulæ 27, 32, 43). An ointment composed of camphor and chloral also gives relief in many instances, likewise ointments containing tar (Formulæ 105, 106).

Care must be exercised in attempting to relieve the itching not to excite inflammation of the skin; it not infrequently happens that stronger and stronger agents are employed, until an artificial eruption is excited which is both distressing and delays the proper treatment. Many of the measures of service in eczema are equally applicable in pruritus.

3. **Dermatalgia.** Pain confined to the skin is a rare affection, but is occasionally met with. The skin is generally sensitive to light pressure, but the positive neuralgic pain, which may last or may be quite transient, is sometimes relieved on deep, firm pressure; no visible signs of disease are noticed externally. Very little is known with regard to its causation, and little with regard to its treatment. Like other neuralgias, it indicates a lowered nerve condition and calls for powerful nerve tonics

and arsenic; locally, galvanism gives considerable relief.

4. **Hyperæsthesia cutis.** Excessive sensibility of the skin is a condition seen in hysterical and nervous patients, and is also an accompaniment of certain diseases of the brain and spinal cord. The patient complains of very considerable pain or distress from even slight contact with the skin, of the air, bed clothes, etc. The condition is to be treated upon general principles.

5. **Anæsthesia cutis.** Diminished or absent sensibility may exist in the skin, either generally or as a local manifestation. It commonly has connection with internal causes, and is observed during the occurrence of leprosy, and also not unfrequently during the eruptive period of syphilis, as analgesia or loss of sensibility to pain; when it exists in syphilis a pin may be thrust through a fold of skin without causing pain. As a local manifestation it occurs as the result of injuries or diseases of certain nerves or nerve centers.

6. **Dystrophia cutis.** This term is employed to designate certain changes which occur upon the skin as trophic disturbances, due to disease or injury of certain nerve trunks. There have been quite a variety of lesions described as thus dependent, a number of them having been observed during our late war in connection with gunshot and other

wounds of nerves. The most commonly known form is the erythematous state or "*glossy skin*," seen after injuries of nerves, whereby a part, as, one or more fingers, will become red, glossy, and shrunken at their ends, with an atrophic condition of the nails, as a result of injury of a nerve trunk in the arm. In certain cases where the nerve injury has been severe and prolonged, vesicles have developed, and in certain other instances distinct gangrene of the skin has resulted from profound nerve injury.

No particular line of treatment can be marked out for these cases, as this must be conducted on general principles, and little can, as a rule, be done to modify the skin lesions present.

CHAPTER XI.

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY AFFECTIONS.

THIS great class, which includes a large share of the diseases of the skin ordinarily met with, has two general subdivisions: (A) Those affections which are induced by contagion or infection; and (B), those of internal or local origin. Eleven different diseases are met with in the first, and twenty-four in the second group.

The first group embraces those which have generally been known as the exanthemata, such as measles, scarlet fever, and small pox, together with certain others whose positions will be defined later. Some of these will be very briefly alluded to, inasmuch as they belong more properly to general medicine than to dermatology; but they are all introduced here because they are at times of very great interest from a diagnostic point of view. Syphilis appears in this group for reasons which will be explained later.

1. **Rubeola.** Synonyms: *Measles; Morbilli; Rougeole; Masern.* Measles is an acute, infectious dis-

ease, exhibiting inflammatory or febrile phenomena, accompanied by symptoms of mucous irritation, and the appearance upon the body of a maculo-papular eruption. The eruption of measles is of a mottled character, consisting of patches of a dull red or raspberry color, showing considerable tendency to assume crescentic shapes.

In from one to two weeks after exposure there occur languor, back-ache, running from the nose, sneezing, and coughing, with congested eyes. After about four days of this, the eruption appears, first upon the forehead, then upon the cheeks and neck, and so on down, until by the end of the third or the fourth day it has covered the body, and is fading from the hands. By the end of the fourth day of its completion, or the eighth day of its appearance, all traces are generally gone except a moderate scaling.

Diagnosis.—The diagnosis of measles is usually not a difficult one, as the general and catarrhal symptoms point to its true character. In certain cases, however, it may resemble other eruptions, namely, *scarlatina*, *roseola*, *rötheln* (or German measles), and the *erythematous syphilide*, also possibly *small pox*, the eruption from *copaiba*, and that from *quinine*, and finally certain cases of scattered *erythema*, and superficial *erythematous eczema*. The eruption which is sometimes called *black measles* is undoubtedly, in most if not all cases, hæmor-

rhagic small pox, under which name it will be described.

Treatment.—The patient should be put to bed, and kept in a warm and even temperature until some time after the complete disappearance of the eruption. The diet should be light and unstimulating; broth, milk, and warm drinks should be given at first until the eruption is fading. Little or no internal treatment is necessary, although it may be required to meet complications. There is little doubt but that inunction, or greasing the surface, is of much benefit, both in measles and in scarlet fever, and should be generally practiced; it gives great comfort to the patient, reduces the fever, and diminishes the danger of communicating the disease. It is very readily accomplished with cosmoline or with almond oil. A good method, common among many, is to soak a piece of fat bacon in water, in order to remove the salt, and then placing it in the oven, and allowing it to melt a little, to rub it well over the body. This may be repeated night and morning or oftener.

2. **Rötheln.** Synonyms: *German measles; Epidemic roseola.* This name is applied to an acute, infectious disease, exhibiting hyperæmic, red blotches, often very closely resembling those of measles, but less sharply and clearly defined, without the tendency to assume the cresentic shape; the eruption is also more irregular in its course and development

than that of true measles, and is not accompanied by the coryza and the indications of mucous irritation observed in the former, though it is often associated with some throat symptoms. There is but little constitutional disturbance, and patients are often up and around during its entire continuance. The rash more often resembles that of scarlatina than that of measles; it may be, however, of much shorter duration than either of these affections, and in light cases disappears within two or three days after its first manifestation. The eruption is liable to be confounded with the same as were mentioned in connection with measles.

The *prognosis* is always favorable, and generally no treatment whatever is required. The disease is supposed to be moderately contagious; it certainly very frequently appears as a mild epidemic, and that more frequently during a time when measles or scarlatina are prevalent.

3. **Scarlatina.** Scarlet fever is a far more serious disease than either of the two preceding, and occasionally proves terribly fatal. The period of incubation is not definitely fixed, and may vary between one or two days and a week, or a little more; the sickness usually commences with more or less of a chill, often with vomiting, headache, sore throat, and general prostration. The eruption appears on the second day of the fever, first upon

the face and then spreads rapidly down the chest and reaches the lower extremities on about the third day; shortly after this it is at its height, and by the fifth or sixth day begins to decline; by the ninth or tenth day desquamation is well established and proceeds for a week or more. The rash has a peculiar scarlet color, whence the name of the disease; in the beginning it is punctate, but when at all general it forms more or less of an evenly reddened surface, hot and tense. The other symptoms always form a striking portion of the disease, and may prove very serious, the sore throat being a prominent and often dangerous feature. The tongue is coated in the middle, but red at the end, and covered with prominent papillæ; the fever runs high, and the sufferings of the patient are generally very great.

Diagnosis.—This is usually not very difficult if the entire history of the patient, and the character and course of the eruption, are taken into consideration. Certain cases may resemble *measles*, and the eruptions mentioned in connection with that disease. There is also a punctate form of *erythema* which closely resembles the eruption of scarlatina, but is unaccompanied by the constitutional symptoms; it is more uncertain in its distribution, and does not pursue the regular course followed by scarlatina, but may desquamate and considerably resemble the rash of scarlatina in this respect; it is very

apt to appear most markedly on the wrists and abdomen.

Prognosis.—This is always doubtful. Cases vary greatly in their severity; some are so moderate as to hardly seem to require the patient to take the bed, while others are fatal at the outset; others still are fatal after a long continuance of the disease. After the eruption has entirely disappeared the dangers are by no means past, for the sequelæ of this affection are among the most serious known. The kidneys are almost always affected to a greater or less degree, and if care be not taken the foundation of serious renal disease may then be laid; the dangers in this respect are peculiarly great during the period of desquamation. Other sequelæ such as ear disease, paralysis, etc., may also give great trouble.

Treatment.—The proper and complete treatment of scarlatina cannot be here discussed. Mention, however, may be made of the very great value of inunction practiced several times daily, as described under measles, both as a means of modifying the fever, giving comfort to the patient, and of protecting others from infection. The greatest care must be exercised to prevent the spread of the contagion of scarlatina; disinfection cannot be too complete, and the patient should be kept from mingling with others for at least a month after convalescence.

4. **Variola.** Small-pox is an acute infectious disease characterized by a pustular inflammation of both the cutaneous and mucous surfaces. The period of incubation varies very greatly, different writers placing it at from six to twenty days. The patient then feels languor and lassitude, with shivering, pains in the back, limbs, and head; there is often nausea and vomiting, constipation and general distress; the pain in the back may be very great.

After about two days of these symptoms small red points appear, first upon the forehead and about the mouth, then upon the rest of the face; this soon proceeds to the neck and arms, then down the trunk to the lower extremities, and the entire body may be more or less affected by the end of twenty-four or forty-eight hours. These little points, which are diffused, small, and red, soon become conical and shotty; and by the next day a minute vesicular point may generally be observed upon them. Within the next two days they enlarge, become indented or umbilicated, and their contents, which are at first transparent, become whitish and milky. By the sixth or seventh day the contents appear as pus, and the vesicles become of a darker color and begin to show signs of drying, which by the seventh or eighth day is quite apparent. As the eruption appears, the febrile symptoms lessen and the patient may be comparatively comfortable when the eruption is in full vigor. By

the eighth day the eruption has attained its height on the parts first affected, namely, about the face, and is less and less marked toward the toes. Thus many phases of the eruption are present at the same time.

About the period when the eruption has attained its height, the secondary or suppurative fever occurs, and continues several days, until many of the pustules burst, or dry into scabs and crusts. The entire process of the formation and separation of the crusts may not be completed before the twentieth day or even later.

There are various forms or varieties of small pox mentioned, which it is not necessary to dwell particularly upon. When the separate pustules occur thickly together, a large, extended surface may be involved in one mass of inflammation, and what is known as *confluent small pox* results. When small pox appears in those who have undergone vaccination, it is generally in a greatly modified variety, and is hence named *variola modificata* or varioloid.

In certain cases the disease assumes a terrific form known as *variola maligna*, or *hemorrhagic small pox*, which often passes under the name of *black measles*. Here the eruption does not exhibit the typical appearance, but the surface may have a dark, purplish color from extensive capillary hemorrhages, and only the greatest care will demonstrate any papules or vesicles upon it. The course and development of

this form is varied; but the disease generally proves fatal; the intensity of the poison seems to disintegrate the blood, it exudes through the capillary vessels everywhere, and hemorrhages from the mucous membranes in all portions of the body occur, which are often frightful in character. The patient seldom survives the fifth day, generally dies by the third, and the eruption rarely displays any of its ordinary features.

Diagnosis.—When the disease is fully developed it is not difficult to recognize, but in mild, sporadic cases, and very early in its course, it may readily be mistaken for other eruptions. The *papulo-pustular syphiloderm* frequently resembles it very closely; it is also occasionally quite difficult to distinguish between mild cases of small pox and *varicella;* in the very earliest phases the eruption may resemble *measles, scarlatina, acne, papular eczema,* and some forms of *erythema.*

Prognosis.—The prognosis of small pox depends greatly upon the case, and no brief statement can be made with regard to it. In milder cases it is almost invariably good, while more severe ones not infrequently prove fatal.

Treatment.—The measures to be employed also vary very greatly with the case. The disease being self-limited, no particular remedies are required to meet it, but the patient must be managed according to the indications occurring from time to time.

The most important dermatological point in this connection is in regard to the possible prevention of the disfigurements which so often result from the lesions, the much dreaded "pitting" of small pox. Various methods and plans have been advocated from time to time for its prevention, all in the main having the same end in view. The cause of the cicatrices which so frequently occur is undoubtedly found in the ulcerations which result from disturbing the pustules during their normal course; upon those parts of the body where they are not interfered with, the scarring is generally slight, if it occurs at all, so that we can believe that if the pustules were left undisturbed they would oftener run their course without causing much if any destruction of skin tissue. The plan, therefore, which secures protection of the surface from friction and irritation, and which modifies the inflammatory action, is that best suited to accomplish this end. For this purpose the eruption should be kept covered with some bland application of a mildly astringent character, calculated to soothe and diminish the congestion of the surface. This is found in such applications as vaseline, or better still in a very weak zinc or calamine ointment (Formulæ 83, 84, 85) carefully spread upon the face. If there is itching there is no objection to the addition of a little tar or carbolic acid to the ointment, as used for eczema. If greasy applications are not agreeable a lotion may be used, as

that of calamine, or others which contain a protective powder (Formulæ 25, 26), which may be allowed to dry upon the skin; a small amount of carbolic acid may be added to this if there is much itching. It is generally acceded that it is better to exclude the light; care must always be taken that the patient does not pick or scratch off the crusts too soon, but allow them to take their full time for maturation and suppuration. The severe ectrotics which have been employed have not appeared to yield advantages commensurate with the pain and trouble attending their use, if indeed they have ever succeeded perfectly.

5. **Varicella.** Varicella or chicken pox is a mild, infectious disease, characterized by an eruption of small, isolated vesicles, often irregularly disposed, accompanied by a very moderate constitutional disturbance. The period of incubation ranges between four and seventeen days, and the patient then complains of a little fever and lassitude; but the constitutional symptoms are generally very insignificant, and frequently among the poor, children are brought to the out-patient clinics with varicella. Often the first sign of disease noted is the appearance of a few points, which are very quickly converted into small, quite distinct vesicles, which are remarkably transparent, and with but little surrounding inflammation.

The vesicles, which are always of small size, generally appear first upon the face, but frequently attention will be first called to their existence upon the back and chest. Their appearance here is generally very conclusive, and the whole back should always be examined in making the diagnosis. The small spots of inflammation are seen to be oval in shape, directed across the body; the congestion is very superficial, easily disappearing on pressure, and the whole is surmounted by a minute, clear vesicle, which soon dries up into a scab. A peculiar feature of varicella is the successive eruption of the vesicles, which appear in crops, often a hundred or so new spots appearing each night for four or five days. There is usually a considerable amount of itching, and children, if not prevented, will not infrequently tear the surface, and often cause considerable scarring, which does not commonly take place where the eruption is undisturbed. The vesicles may come on any and all parts of the body, and I have seen a permanent scar left on the eyelid by a varicella vesicle.

Diagnosis.—The most common disease with which varicella is confounded is *small pox* in its milder forms; the regular progress of small pox from above downwards, compared with the irregular and successive development of the elements of varicella; the superficial character, oblong shape, and quick vesication of the latter, compared with the inflammatory papule of variola, proceeding to suppuration;

together with the general symptoms of small pox, should suffice to distinguish them. The only other lesions which could be mistaken for chicken pox are, an acutely developing *papular syphiloderm*, which sometimes vesicates, and a *multiform erythema*, which may at times present small or large vesicles.

Prognosis.—This is invariably good, unless the patient suffer from some great complication.

Treatment.—The mildest laxative and diaphoretic treatment renders the patient more comfortable, but no remedies can alter the normal course of the disease. Some care should be exercised to prevent those with varicella from scratching the face, and a mild zinc ointment with a few drops of carbolic acid in the ounce (Formulæ 83, 84) will assist in allaying any irritation and preventing scarring.

6. **Vaccinia.** This is an acute, infectious, vesicular disease of the cow, which when communicated to man (usually in the process of vaccination) protects from small pox.

The process and results are familiar to all, and it does not come within the scope of the present writing to enter on the subject, except from a dermatological point of view.

The accidents attending vaccination are numerous, but fortunately they very rarely occur, and in the vast majority of instances, the process progresses normally, the sore heals, and little or no

sensible effect is produced upon the patient's life or health.

VACCINAL SYPHILIS.—Groups of cases have been observed, and also very rarely separate instances, which demonstrate that the syphilitic virus has been and can be conveyed in the process of vaccination; but compared to the numbers vaccinated, the cases of syphilitic inoculation are infinitely rare. The progress of the disease is the same as when it is communicated in any other manner, and the same phenomena may be manifested, unless interrupted by treatment. The vaccination sore may take fairly and exhibit sufficiently well the characters of vaccinia. Within two weeks, however, the site of insertion of the virus hardens, and refuses to heal, and is transformed into a *chancre*, which, unless properly treated, may last several weeks longer, and the evolution of constitutional syphilis follows, as described elsewhere.

It is not yet absolutely determined in what method the syphilitic poison is conveyed; some have held that the vaccine lymph, if taken perfectly clear, cannot transmit syphilis. It is pretty certain that the intermingling of blood from a syphilitic in an active stage of the disease, renders the giving of syphilis probable; whether pus, epithelial débris, etc., as existing in crusts from vaccine vesicles, could convey syphilis, is not yet decided. Safety lies in the use of good animal virus when possible,

or in the securing of only perfectly clear lymph, from a healthy vaccinifer. The possibility of conveying the disease by other means, as by a foul lancet, or soiled fingers, etc., must never be forgotten; it could also be conveyed from mucous patches, through the saliva, if used to moisten vaccine matter, which improper practice is sometimes indulged in.

VACCINAL ERYSIPELAS.—Sometimes in addition to the very considerable amount of inflammation which may accompany vaccination, an erysipelatous action will take place, which may spread to very considerable extent, and prove a troublesome complication. Generally it remains confined to the arm, but in rare instances may extend to the body. This is far more apt to occur subsequent to the use of bovine virus than from perfectly healthy humanized lymph.

FURUNCULAR INFLAMMATION.—Besides a deep inflammatory action, which may result from harsh treatment of vaccination sores, it happens that in persons of a lymphatic temperament, or in those much run down, a furuncular state is developed, which may sometimes be the cause of very great trouble. At the seat of vaccination there may be deep seated inflammation, involving the cellular tissue, and ending in considerable scarring. In certain rare cases the purulent infection seems to go further, and cutaneous abscesses occur elsewhere,

and this condition seems even to be communicable to others.

Other than the above mentioned states, disease cannot be communicated by vaccination. Eczema may be excited in one predisposed thereto, or even psoriasis, but they cannot be communicated from one person to another by this means, nor is it proved that any disease except syphilis can be thus transferred.

In regard to the vaccination of persons suffering from diseases of the skin, it may be stated that if carefully done, and if the sore is properly guarded afterwards, little if any harm can result: as a rule it is not well to vaccinate one suffering acutely from eczema, but in a sub-acute or chronic stage it may be successfully practiced without influencing the disease prejudicially. In those with irritable skins it is always well to employ the recently introduced vaccination shields to prevent undue violence being done to the pock.

CHAPTER XII.

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY AFFECTIONS—(*Continued*).

7. **Syphilis.** Synonyms: *Pox*; *Lues.* Syphilis is a chronic infectious disease, exhibiting a variety of inflammatory and neoplastic lesions which may affect every organ of the body, pursuing a more or less definite course, and capable of transmission by inheritance; as a rule it can be acquired but once during a life time. It is placed here among the diseases induced by infection or contagion, because as a disease it resembles those previously described, in its nature and also in many of its earlier lesions of the skin and mucous membranes; the later manifestations are to be looked upon as its sequelæ.

Syphilis is one of the most important diseases which affects the human race, and the value of a quick recognition of its every phase, and a careful, proper, and thorough treatment cannot be overestimated. Syphilis occurs in an individual in only one of two ways, by inheritance or by contagion; and, although the exact mode and time of acquisition is sometimes difficult to determine, there can

be no question but that the disease is always one and the same, transmitted in one way or the other, and never developed *de novo*. The subject of the acquired disease will be first considered, and inherited syphilis will be treated of subsequently.

The primary lesion of syphilis, or point of entry of the virus into the system, is called a chancre, known also as an initial lesion; it is also spoken of as a hard sore, from the commonly observed, hard or parchment-like induration accompanying it, in distinction from the soft sore or chancroid, which is a local affection, contagious, but not capable of infecting the system. The period at which the chancre makes its appearance after inoculation is uncertain, varying from ten to almost one hundred days; in contrast to this stands the chancroid which has an incubation of but a few days, or even hours.

The initial lesion of syphilis may vary considerably in appearance, according to the location, health of the patient, amount and activity of the poison imbibed, etc.; in its earliest phases it is often difficult of recognition. The points to be considered are, the occurrence of a sore, generally single, ten days or more after connection, its slow development, comparatively innocent appearance, and scanty and serous secretion, together with a painless induration of the lymphatic glands in one or both groins; these features will generally contrast strongly with the early appearance, rapid increase, and rather abun-

dant and purulent secretion from the result of chancroidal inoculation; this latter often exhibits multiple sores, angry in appearance, and is early accompanied by painful, general swelling about the inguinal glands of one side.

By the end of a week induration can generally be made out in the chancre, and sometimes the induration is first observed. The abrasion may often be very insignificant, and occasionally is hardly noticed by the patient.

Chancres may affect any part of the body, and extra-genital chancres have been observed on almost every portion. While the most common mode of acquiring the disease is by impure contact, it is often communicated in ways which are quite innocent. Among the various methods by which the disease has been accidentally acquired, may be mentioned the processes of vaccination and circumcision, also that of tattooing and skin grafting; it has also been communicated by a bite, and in the act of kissing, likewise during nursing; and physicians, nurses, and midwives have acquired it in the discharge of their duty. The means of conveying the poison from one individual to another are almost as numerous as the objects of common life. It has been passed from one to another on the glass-blower's pipe, also by means of smoking pipes and segars; surgical instruments, lead pencils, tooth brushes, drinking and eating utensils, toys, etc., have all been reported as

the agents by means of which individuals have been infected.

The important point to remember in connection with this is, that however or wherever the poison enters, the result is a chancre, the system is not affected in any gradual or occult manner, but invariably by the direct introduction of the poison at some particular place, and that at that place a sore results, which is the first stage of syphilis, the primary lesion.

The period at which the secondary lesions manifest themselves is somewhat uncertain. After the appearance of the chancre, a second interval of incubation occurs, during which the sore heals, and the patient may be in apparent health. But very soon symptoms of lassitude come on, often with considerable headache and pains in the limbs, and shortly the entire surface is found to be covered with a congestive eruption, which may present one of several forms, macular, papular, or pustular. In conjunction with this eruption there is a general enlargement of the lymphatic glands, and more or less sore throat of a superficial form, and possibly iritis. The patient is now ushered very completely into what is known as secondary syphilis.

MACULAR SYPHILODERM. — Synonym: *Syphiloderma erythematosum.* This, the wrongly called *syphilitic roseola*, is the most common form, and occurs earliest after infection, often within the first or

second month, and occasionally entirely escapes the attention of the patient. It consists of a thickly set, slightly marked eruption of congestive blotches, of irregular shape and size, mostly small, seeming to be slightly elevated; the color is of a pinkish red, giving to the skin a mottled look. In searching for it the abdomen and back should be examined, and the eruption becomes more visible after a little exposure to the air.

Diagnosis.—The diagnosis is quite easy when all points are considered; the eruptions with which it might be confounded are *rubeola*, *rötheln*, the eruptions produced by *copaiba* and *quinine*, also possibly some rare cases of *erythema multiforme* and *urticaria*, and the parasitic eruption *tinea versicolor.*

PAPULAR SYPHILODERM.— Synonyms: *Syphiloderma papulosum; Syphilitic lichen?* Various forms of the papular eruption of syphilis are seen; sometimes it follows directly upon the preceding, oftener it is that which is first observed. The entire body, head, and limbs may be the seat of a fine papular eruption, thickly set, with a moderate tendency to scale after some days' duration. Or, the papules may be larger, and even of irregular size, some as large as a split pea, others the size of large pin heads. In other instances fine papules will be grouped around a larger one, or the entire eruption of smaller or larger papules may be arranged more or less in circular or crescentic form. Still another

variety is seen in the large, flat papular syphiloderm, whose elements may even reach the size of a large finger nail, and become more or less covered with a light, moderately adherent scale. The color of the papular eruption of syphilis is far more pronounced than that of the macular; and when it has lasted any length of time, it assumes a deep red, coppery tint; on disappearing coppery stains are left, but no scars. The papular eruption very commonly affects the palms and soles at the same time.

Diagnosis.—This eruption is more frequently confounded with *psoriasis*, it also resembles somewhat *papular eczema*, also *lichen*, *lichen planus*, and *lichen scrofulosus*.

VESICULAR SYPHILODERM.—This is so rare that it is hardly worth considering; it seldom exists alone, and possesses no distinctive features.

BULLOUS SYPHILODERM.—This is also a very rare manifestation of syphilis, and in the acquired disease is only seen in broken down subjects. In hereditary syphilis it is not so uncommon, and is quite often met with on the palms and soles of infants, as will be mentioned later.

PUSTULAR SYPHILODERM.—Synonyms: *Syphiloderma pustulosum; Syphilitic impetigo* and *ecthyma?* The pustular eruptions of syphilis are usually later than those just described; they may follow them either after or without treatment, or may seem to be the first manifestations of constitutional syph-

ilis. The pustules may be small and pointed, or flat, and generally crust over very soon; they are apt to remain some time, and when gone frequently leave small, depressed, brownish scars, which disappear slowly. The larger form of the pustular syphilide sometimes assumes a formidable appearance; the crusts may become large and heaped up, constituting what was formerly known as *syphilitic rupia*. This leaves considerable scarring, which is permanent.

Diagnosis.—The pustular eruptions of syphilis may resemble *pustular eczema*, *scabies*, the eruption from *lice*, and that induced by *iodide of potassium*.

TUBERCULAR SYPHILODERM.—Synonyms: *Syphiloderma tuberculosum; Tubercular syphilide; Syphilitic lupus?* The tubercular syphilitic eruption belongs to the later stages of the disease, and is often spoken of as a tertiary lesion. It consists of one or many solid formations in the skin, generally about the size of a split pea, roundish, and of a brownish red color. They are seldom seen in great numbers, and never over the whole surface; they are usually grouped together, generally forming circles or segments of circles. Occasionally the disease will travel over a large surface (serpiginous tubercular syphilide). Ulceration takes place in the tubercles very readily, and they are often covered with crusts, though they may also only scale over and become absorbed without ulceration; the tubercu-

lar syphilide almost invariably leaves a permanent scar.

Diagnosis.—This eruption of syphilis most resembles *lupus*, from which it is, however, to be carefully differentiated; the designation syphilitic lupus is wrong, lupus is a disease entirely distinct from syphilis. Certain cases may also resemble *epithelioma* and *carcinoma*, also the eruption of *leprosy*.

GUMMY SYPHILODERM. — Synonyms: *Syphiloderma gummatosum; Syphilitic gumma; Syphiloma; Syphilitic lupus?* This is one of the latest manifestations of the poison, and occurs principally in broken down subjects. It consists generally of a single mass of moderately firm substance, of varying size, originating from the sub-cutaneous tissue, and sooner or later ulcerating through the skin. Beginning very small, it may remain for weeks without attracting much attention, but when it begins to ulcerate the destruction may be deep and extensive, attacking bones and joints. Gummy deposits of *syphiloma* may also form in internal organs, and may destroy life.

Diagnosis.—Cutaneous gummata may be mistaken in their early stages for *fatty* or *fibrous tumors*, enlarged *lymphatic glands*, and *carcinoma;* when ulcerating, they may resemble simple and *varicose ulcers*, also *lupus*, and *epithelioma.*

PIGMENTARY SYPHILODERM.—This is an alteration in the coloring of the skin, which is occasion-

ally seen, mainly upon the neck and almost invariably in women; the reasons for these peculiarities in the eruption have never been explained. The skin appears of a darker color, a yellowish brown, and upon this are seen numerous white spots, separate or touching one another, as though a white surface had been stained and then finger marks had been made upon it, showing the white beneath. This pigmentary lesion occurs during the first or second year of the disease, and is not the result of previous lesions; it is quite different from the coppery brown stains left by many syphilitic eruptions.

Diagnosis.—The pigmentation most resembles *leucoderma;* it is to be also differentiated from *tinea versicolor*, and *chloasma.*

MUCOUS PATCHES. — Synonyms: *Condylomata; Plaques muqueuses.* These are moist lesions found upon mucous membranes or upon parts where two surfaces of skin come in contact and are softened and macerated, as about the anus and genital region, beneath the mammæ, in the mouth, etc.; they may occur at any period of syphilis, but are more common during the earlier stages. They differ somewhat according to the situation: within the mouth they are superficial, of a grayish white color, with a raw appearance, often as though a coarse network had been stretched over a denuded surface. About the genitals they are more exuberant, of a reddish color and raised even to the height of a line above the sur-

rounding skin. The surface of mucous patches gives off a glairy secretion which is intensely contagious.

Diagnosis.—In the mouth these lesions are to be differentiated from *simple* and *aphthous stomatitis*, also from the white patches commonly seen in smokers, the *leucoplakia* or wrongly called *psoriasis buccalis*, and from *eczema* of the mucous membranes. In other locations, as about the anus and genital region, some care must be given to exclude the ordinary *vegetations* or *venereal warts*, which have no connection with syphilis.

SYPHILIS OF THE PALMS AND SOLES.—Synonyms: *Palmar and plantar syphiloderm: Syphilitic palmar psoriasis? Psoriasis syphilitica?* During the early stages of syphilis, the palms and soles may be involved in the general eruption, which will here partake of the ordinary characters, and need not be difficult of recognition. But later in the disease, even as long as twenty years after infection, these parts may be affected alone and give trouble in diagnosis. The lesions seen then are papules or tubercles, which are arranged in groups or circles, or parts of circles, and the surface is denuded of epidermis over them, often causing painful fissures.

Diagnosis.—The lesions in this situation may be mistaken for *eczema* and *psoriasis:* the latter should be excluded at once if well marked psoriasis is not found elsewhere, as it is probable that it never occurs on the hands without appearing on other parts at

the same time. The diagnosis from eczema may at times be very difficult. It is to be remembered, however, that the lesion of syphilis is always composed of separate papules or tubercles, while the eruption of eczema spreads peripherally in an even surface; as a result, the margin of the syphilitic eruption will be sharply defined and scalloped or uneven, and the separate elements can always be made out; the eruption also is worse at the margin and with a tendency to clear in the center, exactly the reverse of what is seen in eczema.

HEREDITARY SYPHILIS.—When syphilis is inherited, the child escapes the primary lesion, and the poison is in some way instilled into the system with life; a child born healthy may, of course, acquire syphilis while passing through the mother's parts, or at any time afterwards, as by nursing an infected wet nurse, or otherwise; it then has *infantile* but not *hereditary* syphilis, and the disease begins with a chancre.

The mode in which syphilis is communicated to the offspring has never been accurately determined; it may be given directly from the father, although many have doubted it; the woman can readily communicate the disease to her offspring, or rather, the child being part of the mother is necessarily affected. Syphilis is a very common cause of abortions, and, operating still further back, can cause sterility.

of salivation, the teeth being slightly tender, the action on the bowels being checked by opium if necessary. Bi-chloride of mercury, in pill or solution, so that from one-twentieth to one-eighth of a grain is taken, three times daily, is preferred by many, while others use the bi-cyanide in the same doses. The proto-iodide is one of the most valuable preparations (Formula 69), and was a favorite with Ricord.

Through the skin there are three methods of introducing mercury; by inunction, by vapor baths, and by hypodermic injection. Inunction is usually performed with the unguentum hydrargyri U. S. P., rubbed alternately into the insides of the thighs and the sides of the chest, to the amount of from half a drachm to a drachm of the ointment once or twice in the twenty-four hours. The staining from the "blue ointment" may be obviated by employing the oleate of mercury, in twenty per cent. solution with an equal quantity of vaseline; the oleate is rather apt to irritate the skin.

Mercury may also be introduced satisfactorily by means of mercurial vapor baths; these may be given at public establishments, but are also readily administered at home. The patient sits naked on a chair, beneath which is placed a lamp having a dish over it partly filled with boiling water, with a little cup on it containing half a drachm of calomel, or a drachm of the black oxide. A couple of blankets

are thrown over the patient, and tucked in tightly over the chair, and the lamp lighted; the duration of the bath should be about half an hour, during which the patient should perspire freely; the effect of the bath may be heightened by opening the blankets and inhaling a little of the mercurial fumes. It is well not to dry off the skin, but to get into bed either still enveloped with the blankets, or with a flannel night dress.

Hypodermic injections may be of service when rapid and sure effects are desired; the corrosive sublimate is generally used (Formula 108), and may be employed daily in doses of about one-eighth of a grain.

In the later stages of syphilis, even six months after infection, the addition of iodide of potassium, forming what is known as the "mixed treatment" undoubtedly hastens the disappearance of the symptoms, and contributes much to the patient's well-being. To be most serviceable the mercury and iodide of potassium should be combined with iron and tonic remedies (Formulæ 61, 62), and thus combined can be only of service. Syphilis being a disease tending greatly to debility, a tonic treatment, both as to diet and hygiene as well as medicine, should be ever aimed at.

Very late in the disease when gummy tumors exist, or when serious brain symptoms threaten, iodide of potassium may be required in much larger

doses, and should be pushed to almost any amount necessary to cause the symptoms to yield. When the iodide of potassium cannot be taken, that of sodium and ammonium may be used, or iodine given in the compound tincture of iodine, or as iodoform, or the iodide of starch (Formula 75) may be employed. But it is never to be forgotten that a little mercury may be required even very late in the history of syphilis.

In regard to internal treatment a few general directions may be of service. Mercury if properly used does not do harm, but good, and all the popular fears about the drug remaining in the system and causing subsequent trouble, are wholly groundless; when used as directed, and for syphilis, it is surely a tonic. It is never necessary really to salivate, and although this accident sometimes happens, it should be sedulously guarded against. To this end the mouth and teeth should be kept clean, and the state of the gums watched; the slightest tenderness of the teeth on biting should excite suspicion. The mercury should then be lessened or stopped, and chlorate or permanganate of potassa be used freely as a gargle, and, if necessary, belladonna or atropine given internally.

The treatment of syphilis should be continued long after the disappearance of all symptoms; best authorities place the entire duration at two years, at the least.

Infantile and hereditary syphilis is best treated by means of inunctions, with mercurial ointment diluted once or more, rubbed in and worn on the binder; tonic treatment should also be used as required. Gray powder also answers well, and I have seen excellent results even in small infants from the "mixed treatment" (Formula 62). Later lesions of the bones do very well on the syrup of the iodide of iron.

Little need be said in regard to the local treatment of the eruptions of syphilis. Generally none is called for; if any be required, it is generally such as would be indicated by a similar lesion not due to syphilis. For obstinate tubercular eruptions the emplastrum hydrargyri (Formulæ 18, 19) is of service; scaly eruptions on the hands are much benefited by the application of the oleate of mercury in five or ten per cent. solution. Calomel in ointment, half a drachm or a drachm to the ounce, is often valuable, or ammoniated mercury (Formula 91); and where there is much pain and unhealthy discharge from ulcerating gummata, powdered iodoform alone or in ointment, fifteen to forty grains to the ounce, is of service; its pungent odor is a great objection to its use in private practice. A compound ointment of mercury, iodine and lead (Formula 103), is valuable in old palmar syphilis, and even in syphilitic tumors.

8. **Pustula maligna.** Malignant pustule is the

result of inoculation of the poison from animals with *charbon:* inoculation takes place through abraded surfaces. After a very brief incubation a small, dark red induration occurs, which soon vesicates, and rapidly becomes a pustule, followed by a slough. The sore becomes gangrenous, severe constitutional symptoms appear, and death may result in a few days.

The *treatment* consists in the destruction of the inflamed point with powerful escharotics at the earliest possible moment; the separation of the slough is to be encouraged by charcoal poultices, and attention is given to sustaining the life powers of the patient.

9. **Equinia.** Glanders is a rare affection which originates from contagion derived from a similar disease in the horse. In this animal it is characterized by inflammation of the nasal cavity, leading to swelling and ulceration, with a purulent discharge; later the lymphatics become involved, and swellings may appear in various parts, which ulcerate and discharge fetid matter.

In man there is first inflammation about the wound or scratch where the poison gained entrance, and lymphatic inflammation accompanied with prostration and rheumatic pains; soon the nasal cavity is inflamed and a bloody purulent secretion occurs; very shortly a more or less general pustular

eruption appears, first on the face, somewhat resembling small pox, but in reality being more tubercular, and with a subsequent vesiculation or pustulation, and with a rapid tendency to ulceration.

The *prognosis* is almost always bad, the disease frequently proving fatal in about a week.

There is no *treatment* established other than such as is indicated by the conditions present. *Farcy* appears to be identical in nature with glanders, but a somewhat different manifestation.

10. **Diphtheritis cutis.** Under certain circumstances the skin may become the seat of diphtheritic membrane, wherever there has been any abrasion; even eczematous surfaces are said to become thus covered. In very rare instances it is stated that a vesicular eruption occurs in the disease, and, the vesicles taking on the membranous formation, may coalesce, and large surfaces of disease be thus formed.

11. **Erysipelas.** This is an inflammatory disease of the skin, more commonly of the head and face, attended with fever of greater or lesser severity, generally commencing with a chill, and accompanied with considerable prostration. The skin appears swollen, red, and shiny, and burns and is tender to the touch; the eruption may spread very rapidly until a large portion is involved. In certain cases the disease travels over much of the surface of the

body, disappearing in one portion as it moves on; thus the process may be repeated several times. This is called *erysipelas migrans*, wandering or migratory erysipelas.

The real cause of erysipelas, the poison, is as yet unknown; the disease appears most certainly to be transmissible by contagion, also through the air, as when surgical wards of a hospital become infected, so that every wound is attacked by the disease. But there seem also to be other cases where the disease starts idiopathically, without connection with any previous case.

There are again a certain number of instances where an erysipelatous eruption appears again and again on the face, generally on one side, creeping over the nose, so as to cover the middle portion of the face in a few days; there is some malaise and fever, but the condition is rarely very severe. These cases are generally observed to be associated with nasal catarrh, and the process seems to be excited by lymphatic absorption from ulceration within the nasal cavity: these I have looked upon as a *pseudo-erysipelas*, and non-contagious.

Diagnosis.—Erysipelas should not be confounded with any other eruption, when the constitutional symptoms and the character of the lesions as described are taken into consideration. But many cases of *erythematous eczema*, especially on the face and legs, are often wrongly called "chronic erysipelas,"

as also cases of *acne rosacea*. *Herpes zoster* was also formerly confounded with erysipelas, which accounts for some of the varieties described in older books, as vesicular and bullous erysipelas: while the inflammation may occasionally result in an indefinite raising of the epidermis by fluid, this is really very rare. *Erythema* is differentiated by the absence of constitutional symptoms, by its more superficial character and more rapid course, and by the absence of desquamation later.

Treatment.—A sharp purge with compound cathartic pills, followed by very free and oft repeated doses of the tincture of iron, together with thorough powdering of the surface with flour will very commonly be all that is required.

CHAPTER XIII.

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY AFFECTIONS.—(*Continued.*)

Group B.—Of Internal or Local Origin.

THIS group contains many of the most common and troublesome diseases of the skin, indeed two-thirds of the cases ordinarily presented would be rightly classed here. No attempt at etiology is made in their arrangement, which is based upon the gross lesional aspects belonging to each affection. The nine sub-groups correspond largely to those of Willan. Some of the eruptions here placed are of local origin; most of them are from internal causes, many of which are as yet undetermined.

I. ERYTHEMATOUS ERUPTIONS.

Three diseases are found here, *roseola*, *erythema*, and *urticaria*, all characterized by a very superficial, congestive or slightly inflammatory redness, disappearing momentarily on pressure.

1. **Roseola.** This is the most superficial of cutaneous inflammations, presenting often only a transitory redness, hardly more than a hyperæmia, al-

though in some cases the lesions may last several days. The term has been variously applied by writers, both to idiopathic rashes, and to those symptomatic of, or belonging to other affections; thus we hear of *roseola variolosa*, *roseola vaccinia*, *roseola cholerica*, *roseola syphilitica*, etc., referring to fugitive congestive eruptions seen in small pox, vaccinia, cholera, syphilis, and other diseases.

The term roseola is here used to represent an idiopathic eruption of rose-colored papules or small patches, diffused more or less completely over the whole surface and not connected with any other disease state. There is generally slight constitutional disturbance, restlessness, and fever. The causes are temporary digestive disorders; it is most commonly seen in infants. The older designations of Willan, *roseola æstiva*, *autumnalis*, *annulata*, *infantilis*, etc., are quite unnecessary.

Diagnosis.—This must be made from *scarlatina*, *measles*, *rötheln*, the *erythematous syphilide*, and the eruptions caused by the internal administration of *copaiba*, *quinine*, *belladonna*, etc.

Treatment.—Little or nothing is required beyond slight attention to the digestion and action of the bowels: the condition is very fugitive.

2. **Erythema.** Three varieties of erythema are recognized in the classification, *erythema simplex*, *e. multiforme*, and *e. nodosum*.

ERYTHEMA SIMPLEX.—This is characterized by the presence of a patch or patches of evenly reddened surface, an inch or more in diameter, of various shapes, a little raised, slightly hot to the touch, and disappearing momentarily on pressure. The condition is often a transitory affair, lasting a single day; sometimes the patches remain longer or recur repeatedly.

ERYTHEMA MULTIFORME.—Polymorphous erythema is a very curious and often puzzling affection. It includes several conditions, namely: *erythema palpulatum*, *e. tuberculatum*, *e. annulare* or *marginatum*, and *e. vesiculosum* or *e. iris*: that is, while the real lesion is spoken of as an erythema, the process may be so severe that papules or raised rings are formed, and the congestion may even be so great that fluid exudes and vesicles or bullæ form. With all of these, larger erythematous patches of various shapes are often observed, quite appreciably raised, hot to the touch, and attended with burning sensations. The hands and forearms are almost always most severely affected, also the backs of the feet and the thighs, the eruption being commonly symmetrical; the face is usually involved. There is generally some malaise and more or less of fever. The disease may be prolonged several weeks, with repeated accessions of lesions.

ERYTHEMA NODOSUM.—Synonyms: *Dermatitis contusiformis*. This is often described as a separate

disease, distinct from the preceding forms of erythema; but, while it generally presents quite characteristic features of its own, it is also seen in less marked degrees, and in forms which so resemble the multiform eruption previously described, that there can be little doubt as to their relationship.

When characteristically developed, the eruption is in the form of rounded, more or less elevated, node-like blotches, which are reddish at first, but with a tendency soon to become darker colored and to fade to a yellowish hue as they disappear, within a week or so of their development. They are far more commonly developed on the extensor aspects of the limbs, but may appear elsewhere: they are accompanied with burning pain and are tender on pressure; unless injured they never suppurate, and the affection is usually a mild one, although it may be prolonged by successive crops of eruption.

Diagnosis.—Erythema simplex may be mistaken for *erysipelas* and *erythematous eczema*. Erythema multiforme at times resembles *urticaria*, *papular eczema*, and *lichen planus*, while the gyrate forms may be mistaken for *ringworm*. Erythema nodosum may be confounded with *bruises* and *cutaneous abscesses*, and, when occurring only over the tibiæ, the swellings resemble *syphilitic nodes*.

Treatment.—Very little medication is called for in any of the forms of erythema, except when the multiform variety is due to nervous depression,

in which case the most careful treatment will be required. Ordinarily a little stomach and bowel derangement will be discovered, and rhubarb and soda (Formula 55) will generally correct this; when more severe, such a mixture as that of magnesia and iron (Formula 52) will be found serviceable. Locally protective powders (Formulæ 76, 77, 78, 79), or astringent lotions (Formulæ 25, 26), assist in allaying the cutaneous hyperæmia.

3. **Urticaria.** Synonyms: *Nettle rash; Hives; Cnidosis; Febris urticata;* German, *Nesselsucht;* French, *Urticaire.* This is characterized by the sudden appearance of flat, solid, slightly elevated blotches called wheals, which are irregular in size and shape, and are either reddish or paler than the normal skin. The eruption is always accompanied by irritation of a pricking, stinging, or burning character, which is often worst just before its appearance. The individual spots generally last but a short time, from a few hours to a day, and the eruption may be acute and consist of one or a few outbursts, or it may be chronic with the continual or frequent reproduction of the wheals. The spots may vanish as suddenly as they appear, or may subside slowly. One variety, to be described, leaves a small, solid, papule in its center. There is usually stomach or bowel disturbance, a coated tongue, and, if the attack be sudden, a little headache and even fever.

Several forms of urticaria are spoken of.

ACUTE URTICARIA.—This generally arises from acute gastric disturbance, often from irritating ingesta, as stale fish, fruit, etc. There is a general sense of fullness, the entire skin seems hot and tense, and shortly a greater or less development of wheals takes place, accompanied by most distressing burning and itching.

CHRONIC URTICARIA.—This form is often developed insidiously; the patient may seem to enjoy good health, but is tormented with the continual formation of wheals and irritation of the skin, which is generally greatest after meals. In certain cases the urticarial attack will come on at a regular time of day, or even on alternate days, and is found to depend upon malaria, and to be broken up by efficient doses of quinine.

URTICARIA PAPULOSA.—This is sometimes wrongly called *lichen urticatus*, because of the lichenoid papules which are left after the subsidence of the wheals. It is most commonly seen in children, and often the only visible eruption will be scratched papules with a faint halo around them.

URTICARIA TUBEROSA.—Occasionally the swellings of urticaria assume some size, even to almost that of half an egg; this has been called *giant urticaria*, of which I have seen one striking case. When the urticarial swelling takes place about the face considerable deformity may be produced; some-

times the tongue is affected, and the patient may be almost choked.

URTICARIA PIGMENTOSA.—A very curious condition has been described under this name to which Tilbury Fox once gave the name of *xanthelasmoidea*, because of the resemblance of the patches which are left by it to the yellow patches of xanthelasma. It is a rare affection, of which I have seen but two cases in this country and several in England. The earlier development is in the form of wheals like ordinary urticaria, which on subsiding leave yellowish, slightly elevated patches, which remain for a long time; the cases have been mostly in very young children, and have given rise to much suffering.

Diagnosis.—Ordinarily urticaria is easily recognized by the history, and the presence of the wheals; it may be mistaken for *erythema multiforme*, and the papular variety often resembles *scabies*, and also *papular eczema.*

Prognosis.—An acute attack, as from mushrooms, stale fish, etc., occurring for the first time, may pass off readily, or it may be the beginning of a chronic condition: the chronic form often proves most rebellious.

Treatment.—Where an irritating substance may reasonably be supposed to be yet in the stomach, an emetic should be given; almost always a moderate purgative is of service at the beginning of treatment, as calomel and jalap, or blue mass (Formula

65), and the laxative effect may be kept up by moderate use of rhubarb and soda, or magnesia (Formula 55). In more chronic cases the greatest care must be paid to the diet and hygiene, and every possible source of ill health removed. Especially must the excretion from the bowels and kidneys be cared for; aloes and iron (Formula 66) aids the former excellently, and alkaline remedies (Formulæ 53, 54, 55) are generally called for; in chronic cases mineral acids are of most service.

The local treatment is of considerable importance; first, all irritating elements must be removed, as flannel next the skin. Alkaline baths (Formulæ 1, 2, 3) are of great value, with the subsequent application of carbolized ointments (Formula 104); when there is much liver disturbance acid baths are of most value (Formula 5); salt water baths are also good. Ammonia spirits relieves the itching, also lotions with acetic acid, and alcohol, also belladonna, aconite, and carbolic acid (Formulæ 32, 44). On exposed parts much relief may be obtained by calamine and zinc lotions (Formulæ 25, 26), and chloral and camphor in powder or ointment (Formulæ 81, 105) assist greatly.

II. PAPULAR ERUPTIONS.

There are two distinct eruptions whose characteristic lesion is recognized to be a papule, namely, *lichen* and *prurigo*.

4. **Lichen.** Lichen is characterized by the presence of inflammatory papules, of various sizes and shapes, though generally small, which preserve their character to the end, and are accompanied by marked itching. The name lichen has been variously used and abused, but at present is applied with tolerable unanimity to three or perhaps four conditions which resemble each other, if indeed they are not closely related; these eruptions differ so much that their separate consideration is necessary.

LICHEN SIMPLEX.—In this the papules are pointed and hard, with a redness which disappears momentarily on pressure; they may be scattered, or gathered together in groups, and generally affect the extensor surfaces of the limbs, and also the body. The eruption may very readily be confounded with papular eczema. When grouped together the term *lichen circumscriptus* has been used. *Lichen tropicus* or prickly heat, consists of numerous, minute, bright red papules, seen commonly in infants; by some writers it has been regarded as a congestive affection of the sweat glands; it is a transitory affair, and requires little treatment. *Lichen agrius* is an old term for aggravated lichen, and the cases to which this name was given are now generally recognized as eczema. *Lichen urticatus* is another name given to urticaria papulosa.

LICHEN RUBER PLANUS.—The papules in this are sharply defined, about a line in diameter, flat on the

top, and often slightly depressed in the centre, of a purplish pink color, and shiny on the surface. They appear quickly and increase to the size mentioned, and will often remain for a very considerable time, resisting treatment; they may run together, forming patches of some size. They more commonly appear first on the wrists and backs of the hands, and the glans penis may be first affected. There is sometimes great itching, often it is slight. The *lichen ruber* of Hebra is thought to be the same affection; the papules here are more acuminate, and tend to crowd together; it is very rare in this country.

LICHEN SCROFULOSUS.—This is in reality lichen simplex occurring in strumous subjects. It is characterized by reddish or yellowish papules, more or less grouped, and usually covered with greasy scales; the skin is commonly inactive and dry; there is little itching. The eruption is rare in this country, but has been observed here.

Lichen pilaris is not a true lichen, but an epidermal hypertrophy, and will be described as *keratosis pilaris.*

Diagnosis.—All the forms of lichen may be mistaken for *papular eczema*, and *urticaria papulosa*, also for the scattered *papular syphiloderm;* great care will often be necessary in differentiating the eruption from *scabies.* Lichen planus sometimes resembles guttate *psoriasis* and *erythema papulatum.*

Prognosis.—Acute lichen generally yields readily, as also lichen scrofulosus; lichen planus often proves obstinate.

Treatment.—The treatment of lichen is essentially that of eczema, and need not be fully detailed. Both internal and external measures are required; alkaline tonics and baths are especially valuable.

5. **Prurigo.** The distinction must be clearly made between *pruritus* and *prurigo;* the former is a subjective symptom, namely itching, which accompanies many eruptions, such as eczema and scabies, and which may also occur idiopathically, and thus constitute a disease, as already described. Prurigo represents a papular eruption of peculiar character, accompanied also by itching, which is usually intense. The name prurigo has been very vaguely applied, and many older writers thus designate the eruption caused by lice, which is now known as phthiriasis or pediculosis. The terms *prurigo podicis* and *prurigo scroti* are also met with, used to designate an itching eruption of the anus and genital region; most of these cases are eczema, others simply pruritus; prurigo does not affect these portions alone. Again, others have applied the term prurigo to papular urticaria, known also as *lichen urticatus*, already described; and others speak of prurigo senilis, to indicate the *pruritus* which attends the changes in the skin incident to old age.

As understood by dermatologists to-day, prurigo is characterized by the development of numerous, small, solid papules deep in the skin, either of the color of the integument or of a pale red, and attended with great itching. The papules are the primary lesions, and until torn in scratching exhibit little or no inflammatory element; when recent, they are felt rather than seen, although they project slightly above the surface. The original seat of their appearance is the extensor surfaces of the limbs; as later features we have their more or less general development, with harshness and pigmentation of the skin, enlarged lymphatic glands in the groins, and exhaustion from constant irritation.

Diagnosis.—This eruption in a severe form, such as is seen in Vienna, is a very rare one in this country, although cases of *papular eczema* and *urticaria* often simulate it very closely. But in a milder form it is not unfrequently met with among the poor, especially in children; here a large portion of the surface is moderately covered with an eruption, papular in character, with many scratched points, and a dry, hard surface; true prurigo is said always to begin in childhood. It resembles very closely *urticaria papulosa*, but papules occur without the existence of wheals; it also resembles *scabies*. This milder form in children corresponds to what has been described by the French as *strophulus prurigineux*.

Prognosis.—Always very doubtful.

Treatment.—This relates largely to general measures, looking towards a perfect restoration to health, which is always lowered in these patients. Kidney and bowel secretion should be attended to, and iron, cod-liver oil, the phosphates, etc., are given. Arsenic has only a moderate effect, but carbolic acid internally has been said to control the itching in a measure. Local treatment is very important; alkaline baths (Formulæ 1, 2, 3, 4), followed by a carbolized ointment (Formula 104), are of value. Also tarry preparations, as the alkaline tar solution (Formula 42), diluted to a strength sufficient to give relief; likewise oil of cade freely applied, pure or diluted, with cod-liver or linseed oil (Formula 41).

III. VESICULAR ERUPTION.

But one name appears here, namely *herpes*, although vesicles are observed in several other diseases, because in this alone the vesicle is a constant pathognomonic sign. This herpes is distinct from herpes zoster or zona, which has already been described as a neurosis because of the constant pathological nerve change found in it.

Herpes. Herpes is an acute inflammatory affection, whose characteristic lesion is a group or groups of flattened vesicles, seated on an inflamed and sensitive base. Four varieties are recognized: *herpes febrilis*, *h. iris*, *h. progenitalis*, and *h. gestationis*.

HERPES FEBRILIS.—Synonyms: *Herpes facialis; Herpes labialis.* This relates to what are commonly known as "cold sores" or "fever blisters," occurring most frequently about the mouth and lips; the eruption is also occasionally seen elsewhere on the face, and inside the mouth, and even about the anus. The phenomena of burning and a little pain are familiar to all; very little is known of their significance. In certain rare cases a general eruption of febrile herpes has been observed, (*herpés généralisé fébrile*), attended with considerable malaise, headache and fever.

HERPES IRIS.—Synonyms: *Herpes circinatus; Hydroa?* This is a comparatively rare eruption, and is closely allied to erythema multiforme, if indeed it is not to be looked upon as a phase of it. The eruption is characterized by the occurrence of vesicles in circles around a central one; sometimes several develop in succession and a series of concentric rings of vesicles may be observed. These cases have sometimes been described as *herpes circinatus*, a term more commonly applied to ringworm, or tinea trichophytina.

HERPES PROGENITALIS.—Synonym: *Herpes preputialis.* In this the small groups of flat vesicles form and rupture very quickly, so that there is usually presented only a raw surface, which may readily be mistaken for venereal lesions. The eruption is most apt to appear on the prepuce, but may

also come on the glans and body of the penis, also on the female labia. The superficial and grouped character of the vesicles, abrasions, or ulcerations, and their sudden appearance after a little burning pain, should distinguish them. Their course is short, and in a few days, if uninjured, they crust over and disappear.

HERPES GESTATIONIS.—This curious eruption, as the name implies, belongs to the pregnant state. During the later months of gestation, generally after the seventh, sometimes beginning with the fifth month, excessive itching begins upon the extremities, and is soon followed by the development of grouped papules which soon vesicate and may develop into bullæ of some size. The eruption is prolonged by successive crops, and lasts until delivery, when it disappears suddenly, or may be followed by an outburst three days or so after parturition.

Diagnosis.—This should not be difficult. Febrile herpes may resemble *mucous patches;* herpes iris could only be mistaken for *multiform erythema;* the herpetic eruption on the genital regions resembles *venereal sores* and also *balanitis;* and herpes gestationis appears like *papulo-vesicular eczema.*

Prognosis.—All forms of herpes tend to spontaneous recovery; but herpes progenitalis is very apt to relapse, and is important as affording a point of entry for syphilitic or chancroidal virus; "cold sores" on the lips may also receive infection from mucous

patches. Herpes gestationis is very apt to recur with each succeeding pregnancy.

Treatment.—In most cases little internal treatment is required, other than a cooling laxative, as citrate of magnesia or the mineral waters; in herpes iris a nervous breakdown may be the cause of the eruption, and in this, as in herpes gestationis, strong nerve tonics and arsenic are of much service (Formulæ 58, 60, 64). Soothing and protective lotions and ointments (Formulæ 25, 26, 27, 28, 30, 83, 84, 85, 95) are of value; tannin in ointment (Formula 87) or lotion (Formula 22), assists in warding off herpes preputialis. These raw points should never be cauterized. In herpes gestationis, in addition to cooling lotions and ointments, great relief to the itching may be obtained from the liquor picis alkalinus (Formula 42) diluted ten to twenty times, more or less, followed by a protective ointment (Formulæ 83, 84, 85).

IV. BULLOUS ERUPTIONS.

Three affections are thus classed, namely, *hydroa*, *pemphigus*, and *pompholix*.

7. **Hydroa.** The term hydroa is of recent introduction, and its exact use is by no means yet settled. It is employed mainly to represent a class of cases characterized by the occurrence of bullæ of various sizes, generally small, which can hardly be grouped with herpes, nor yet with pemphigus; the

eruption is very apt to recur, and is often associated with the gouty habit. There is room for doubt as to the propriety of making a separate affection by this name, as many of the cases thus reported appear to be related to *bullous urticaria*, *erythema multiforme*, *herpes iris*, or *pemphigus*.

The *treatment* is to be guided by the conditions present, and is the same as is of value in similar eruptions.

8. **Pemphigus.** Pemphigus is essentially an eruption of bullæ, but under certain conditions these become so altered as to be hardly recognizable, while in many cases they form a striking and almost startling feature. Two forms of the disease are recognized, *pemphigus vulgaris* and *pemphigus foliaceus*.

PEMPHIGUS VULGARIS may attack any or all portions of the body; different cases differ very greatly in their severity and extent. The bullæ generally develop rapidly, and often blisters of great size form in a day; the contents soon become purulent; there is but little inflammation at the base or around them. In certain cases there is a strong tendency to ulcerate, and each bleb may become the seat of a diphtheritic appearing membrane, refusing to heal.

PEMPHIGUS FOLIACEUS.—The appearance exhibited by this eruption, when of any duration, would hardly suggest the bullous character of the disease. The surface presents a raw condition, with nu-

merous, partially attached, thin sheets of epidermis; these have resulted from ruptured bullæ, or from such as have but imperfectly formed. The course of this eruption is most chronic and rebellious to treatment; the patient suffers greatly and finally succumbs.

The term *pemphigus pruriginosus* has been applied to the eruption of herpes gestationis; *pemphigus malignus*, *cachecticus*, and *gangrænosus* relate to severe cases and lowered vitality.

Diagnosis.—Bullæ are observed in a number of affections, *dermatitis*, *hydroa*, *erythema multiforme*, *urticaria bullosa*, *erysipelas*, *pompholix*, *syphilis*, and sometimes in *scabies* and *lepra*; moreover they arise in some persons upon very slight local irritation. But it is to be remembered that the characteristic lesion of pemphigus is a bulla, whereas in other eruptions this is a secondary matter, and other lesions are present. Pemphigus foliaceus resembles *chronic general eczema* and *dermatitis exfoliativa*.

Prognosis.—This is always grave except in very mild cases.

Treatment.—There is one remedy which has a very great power over pemphigus, and that is arsenic; given rightly, it is almost a specific. To be effective it must be administered with a free hand, given every two or three hours, even in doses sufficient to act on the bowels, or to cause its physiological effects on the eyes and stomach, if the eruption does

ıd sooner; it is well administered in Vichy ɛr, and the liquor sodæ arseniatis is preferable to owler's solution. Tonics are also called for, and most nutritious diet. Locally it is to be remembered that the epidermis forms the best covering for the abraded surface, and therefore if the bullæ are evacuated, as is often necessary to relieve the tense distress, they should be disturbed as little as possible. Evaporating lotions, containing powdery sediments (Formulæ 25, 26, 28, 30), give considerable relief; raw places are to be dressed with soothing ointments (Formulæ 83, 84, 85). When there is itching the liquor picis alkalinus (Formula 42), diluted ten or more times, gives great relief, either alone or added to other lotions.

9. **Pompholix.** Synonym: *Cheiro-pompholix.* This is another eruption of recent definition about which opinion is still unsettled. It consists of an eruption upon the hands or feet of deep seated vesicles which may develop into bullæ; these often are seated along the sides and backs of the fingers, and also occur on the palms and about the ankles. The appearance of the vesicles and blebs is preceded by burning and tingling, and there is little inflammation attending the process; there is also very little tendency for the later development of anything like eczematous surfaces, but the lesions incline to dry up shortly. This condition is believed to be differ-

ent from the *dysidrosis* of Tilbury Fox, which is described among diseases of the perspiratory glands.

Diagnosis.—The eruption resembles *eczema*, also *dysidrosis*, and could be mistaken for *scabies*.

Prognosis.—There is a strong tendency to recur in pompholix; separate attacks yield readily.

Treatment.—Arsenic has a very considerable control over the eruption, and arrests its development; strychnia, quinia, and nerve tonics, together with cod-liver oil and good diet, form the treatment of most service. In acute attacks a purge and an alkaline tonic (Formulæ 52, 53, 55, 65), give the most immediate relief. Locally, cooling lotions and mildly astringent ointments (Formulæ 25, 26, 28, 85, 87, 94) serve to relieve the condition.

V. PUSTULAR ERUPTIONS.

Four distinct diseases are placed here, whose characteristic lesion is a pustule; these are *sycosis*, *impetigo*, *impetigo contagiosa*, and *ecthyma*.

10. **Sycosis.** Synonyms: *Sycosis non-parasitica; Folliculitis pilorum; Mentagra; Acne mentagra.* Sycosis is an inflammation around and in the hair follicles, principally of the hairy face, exhibiting pustules, penetrated each by a hair, accompanied by pain and burning sensations. This disease must be carefully differentiated from parasitic sycosis, a form of ringworm often known as barber's itch, described under

parasitic diseases as tinea trichophytina barbæ. Sycosis begins with a deep seated stinging or burning pain, which is shortly followed by the appearance of red points which quickly show signs of pus; later the inflammation becomes more general, the inter-follicular tissue is involved, and a more evenly reddened surface may occur, or even a succulent, tubercular, or fungoid condition. This latter, however, belongs rather to tinea barbæ or the parasitic eruption of hairy parts.

Sycosis being a peri-folliculitis at first, when pus appears at the surface it has traversed the follicle; the hair is, therefore, found to be detached and easily extracted from its seat, together with a mass of succulent epithelial cells composing its root-sheaths, which are infiltrated with pus and serum. Another sign relating to the deep-seated inflammation is exhibited in a tenderness when the hairs are seized and pushed in, or lightly drawn on, there being a soreness felt which is quite different from the sensations belonging to other affections. As a result of the thorough involvement of the follicle from beneath, there is not infrequently permanent baldness from sycosis. The most common region to be attacked is the sides of the face, also the chin, and upper lip, but it may also affect any part of the body where there are large hairs.

Etiology.—This is little understood; the eruption often appears quite unconnected with apparent

local cause; while it is more common in those who have recently ceased shaving, it is also observed in those who have never shaved, or not for many years, and in those who shave daily; it is not contagious. It is often observed in those exhibiting an eczematous habit, and commonly seems to be connected with digestive derangements.

Diagnosis.—Sycosis often resembles *eczema* of hairy parts very strongly; it may also be confounded with *tinea barbæ*, *acne*, and an eruption of *syphilis*.

Prognosis.—This should always be guarded, for the eruption is apt to be most rebellious.

Treatment.—The internal measures are largely those applicable in eczema, with which the disease has close affinity; arsenic often seems to have a controlling influence; when there is much old thickening, small doses of mercury are of service. The local treatment is all important. First is the removal of the hair; when pustules are formed the hairs in them should be extracted, but if much pain is caused the hairs should not be taken out, the object being only to remove loosened hairs and to permit the escape of pus. Next, the part must, in most cases, be shaved, and that even every day. The operation is painful at first, but is soon preferred by the patient; when only clipped short the stiff hairs irritate the deep portions as they are pressed on in making dressings. The most service-

able application is the diachylon ointment (Formulæ 94, 95) spread on the woolly side of lint, and bound firmly on the part. If this cannot be worn during the day, it may be wiped off, and an ointment of calamine (Formula 84), spread lightly on, may be substituted. In the more acute stages it should be treated like pustular eczema, and when more chronic, stimulant and absorbent applications (Formulæ 19, 92, 102) may be employed.

11. **Impetigo.** In former times many cases of pustular eczema were thus named, but at the present time a limited but definite application is made of the term impetigo, while some observers discard it entirely. Practically, however, cases are met with which exhibit pustules which are peculiar, and do not belong to eczema or to any other recognized condition. The pustules of impetigo are separate, superficial, and small, with a comparatively insignificant amount of surrounding inflammatory action; they tend to dry into yellow crusts, and, if undisturbed, heal kindly. This eruption is more frequently seen among the poor, and especially among children; it is most common on the face and hands, but may affect any portion of the body.

Diagnosis.—The eruption resembles pustular or *impetiginous eczema*, *impetigo contagiosa*, *scabies*, the lesions accompanying *phthiriasis*, and *pustular syphilis*.

Prognosis.—This is invariably good, if properly treated, but if neglected the pustules may continue to be produced for a long time. Unless greatly irritated and caused to ulcerate, they do not leave cicatrices.

Treatment.—This is essentially that of eczema; as far as known, the causes are the same. The process is inflammatory, and the mildest and the most soothing local measures must be employed.

12. **Impetigo contagiosa.** All pus is more or less inoculable, but in this affection there appears to be a contagious principle which propagates the disease, both on the affected person and others: it is supposed to be local in its action, the system not being affected.

The eruption resembles ordinary impetigo, but is characterized by the superficial nature of the lesions, which consists of flat vesico-pustules, which rapidly dry into yellow, friable, brown-paper-like crusts. They may be isolated or grouped together, and vary in size from that of a small split pea to that of a finger nail. Beneath the scabs the surface is moist, and secretes a little pus, and heals without a scar. The most common locations are the face and hands, but any portion may be attacked, it usually spreading from above downwards; children are most frequently attacked, and sometimes it appears in a number of cases in a community.

Some recent writers have revived the old term *porrigo* as a synonym for a pustular eruption of the scalp; the descriptions of porrigo in older books are so uncertain, that it is hardly possible to recognize what was meant. Many diseases, eczema, phthiriasis, favus, etc., were formerly thus confounded.

Etiology.—The cause is supposed by some to be a vegetable parasite, but the reports in regard to it differ so much that it is probable that the elements found in the crusts were accidental.

Diagnosis.—The eruption may be mistaken for *impetigo*, *pustular eczema*, *hydroa*, *varicella*, and a *pustular syphiloderm.*

Prognosis.—The eruption is almost self-limited, running its course in a week or two, if not subjected to irritation.

Treatment.—Mild laxatives and correctives are of service, followed by tonics, as it is seen most commonly in those in a lowered state of health. Locally only the mildest ointments are required (Formulæ 85, 86, 90, 91); a very weak white precipitate ointment answers best, with a little carbolic lotion (1 : 20) if it does not yield.

13. **Ecthyma.** This is characterized by larger and deeper pustules than those of the preceding eruptions, seated upon a more inflamed base, leaving excoriations and temporary scars; ecthyma dif-

fers from a boil in not having a central core of necrosed tissue. The pustules may appear singly or scattered over much of the body; they are highly inflammatory, and often cause considerable pain. Lesions resembling ecthyma appear in syphilis, scabies, and phthiriasis, but are excluded in the present understanding of the eruption. It occurs most commonly among the poor, and is often the result of neglect and filth; scratching often plays a prominent part in its causation and continuance.

Diagnosis.—Ecthyma resembles the large flat *pustular syphiloderm*, also the lesions seen in *scabies* and *phthiriasis*, also *impetigo*, *impetigo contagiosa*, and *pustular eczema*.

Prognosis.—The state is entirely curable, and there is no particular tendency to relapse.

Treatment.—Powerful tonic remedies are called for (Formulæ 52, 58, 59), care being also taken of the emunctories, and that the diet is most nutritious, with the avoidance of stimulants and tobacco. Locally, soothing and slightly stimulant applications (Formulæ 84, 85, 88) are called for, together with perfect cleanliness.

CHAPTER XIV.

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY AFFECTIONS.—(*Continued.*)

VI. MULTIFORM ERUPTIONS.

WHILE syphilis, scabies, erythema multiforme, and perhaps some other eruptions may be polymorphous, there are but two whose essential character is recognized as such in the classification employed; these are *eczema* and *dermatitis*. These two often resemble each other very closely, but, as will appear later, it is very important that they should be differentiated; dermatitis is a local inflammation, entirely due to local irritants, while eczema is a constitutional affection, in which it is often impossible to trace any local cause for the eruption.

14. **Eczema.** Synonyms: *Salt rheum; Moist tetter; Scall; Milk crust.* Foremost among all diseases of the skin in importance, both from the numbers affected and the distress occasioned, must always come this ever-varying eruption eczema. It attacks all classes and conditions, from the cradle to the grave, appears about equally in both sexes,

and comprises nearly one third of all cases that make up statistics; among the 8,000 cases here analyzed, eczema occurred 2,679 times, forming 33.99 per cent. in private and 33.24 per cent. in public practice; probably the real proportion is nearer one-half of all skin cases, inasmuch as many have it without seeking relief.

Eczema may be defined as a non-contagious inflammatory disease of the skin, of constitutional origin, acute or chronic in character, manifesting any or all of the results of inflammation at once or in succession, and accompanied with burning and itching. As further details may be mentioned, the tendency to exude a serous discharge, which stiffens linen and dries into scales and crusts, and in later stages an infiltration or thickening of the skin, which then cracks, producing painful fissures.

It will be seen that eczema is no longer regarded as a vesicular eruption, as formerly, but that its manifestations may be most varied. Among one hundred miscellaneous cases of acute and chronic eczema, not ten instances, if indeed five, would present a single well-marked vesicle when first presented for treatment. The eruption may remain erythematous from first to last, or it may be papular; or vesicles may be repeatedly formed, or the epidermis may be stripped off very quickly, leaving a raw, red surface; or, pustules may be freely developed, isolated and distinct, or a purulent and dis-

and less plastic, it raises the epidermis, and vesicles result, or pustules when the inflammation is intense or the vitality lowered; after the diseased patch has been bereft of its normal epidermis, the fluid exudes directly from the surface, and forms the "watering," "leeting," or discharging feature belonging to certain phases of the eruption (*eczema madidans*). In some cases this moist stage occurs almost immediately, the epidermis being shed in a mass.

4. *Crusting and scaling.*—The exudate of eczema, which stiffens and stains linen, has a very strong tendency to dry into crusts and scales. If a discharging surface is left exposed to the air it soon becomes glazed over and slippery, but dry, in place of being sticky; this coating increases from beneath, and forms scales or crusts of varying thickness. Especially in infants, as in "milk crust," and upon the scalp, the masses may be very great; on removing them the surface is still moist beneath. Another condition of scaliness is seen where, without any previous moist stage, the epidermis is continually shed from a more or less reddened base, as upon the scalp, forming "dandruff," in erythematous eczema.

5. *Infiltration, or thickening.*—This belongs principally to chronic eczema, but is seen more or less in every case; the skin then acquires a hard, leathery condition, and the increased thickness is recognized by comparing a fold of diseased integument with

a corresponding portion of unaffected skin. This thickening may extend even through the entire corium, and on the legs simulates elephantiasis Arabum.

6. *Fissures, or cracks.*—Closely connected with and dependent upon the last symptom, are the fissures or cracks, which occur in localities where eczematous skin is called on to stretch and bend, as on the knuckles and palms, behind the ears, and elsewhere. The infiltration of the corium with the products of inflammation renders the fibres, which should be very elastic, dense and hard; and the inflammatory cells, without cohesive power, scattered among the fibres, weakens what strength is left. Sometimes cracks on the ends of the fingers appear to be the only sign of eczematous disease.

In regard to the names given to the varieties and forms of eczema, there has been too much confusion, and too great stress is laid upon them; the disease is one and the same, although the external manifestations may vary greatly in different patients, or even in the same case at different times, and also according to the locality. The various names which are found in literature connected with eczema amount to about one hundred and eighty, given mostly to express various features in the eruption. They relate to five elements of importance in the consideration of the disease, namely, 1. The

stage of the eruption; 2. The lesion present; 3. The location of the eruption; 4. The condition of the diseased part; 5. The cause. A sixth group may be made of miscellaneous popular and other names. The actual name employed is of little importance, provided the condition represented be understood, which is very important both for diagnosis and treatment.

The first element is the *stage* or *state* of the existing eruption. Three general divisions may be here made, namely, into *acute*, *sub-acute*, and *chronic eczema;* the same case may present each phase, either at the same time in different localities, or at different times.

ACUTE ECZEMA is characterized by heat, burning, and tingling, with redness and œdema, which latter may be considerable where the skin is lax. Shortly papules and vesicles may appear, or the epidermis may be stripped off, leaving a raw, exuding surface; or, the process may remain erythematous to the end. Acute eczema resembles dermatitis very greatly, and it is often impossible to determine the true character at once. If the eruption of acute eczema is protected, or not further irritated, it tends to subside in a few days, but not completely, for the eruption lingers in a less acute condition, and is apt to pass into the state next described.

SUB-ACUTE ECZEMA refers to a less inflammatory condition, with a reddened, itchy surface, and mod-

erate thickening; the diseased portions may be moist, tending to become scaly or crusted, or they are hard and papular, exuding a glairy fluid when scratched.

CHRONIC ECZEMA.—This term is applied both to an eruption of long duration, and to the condition which usually obtains in old cases; it is characterized by reddened and thickened skin, which itches furiously, and may desquamate freely, or exude if scratched. Where there is motion there is a tendency to fissures, which may be very painful. Itching may be absent in particular cases of chronic eczema.

The lines of demarcation between these three conditions are not well defined, but the distinction between the acute inflammatory state and the chronic, indolent condition must be remembered, as it is of great importance therapeutically; in the former the mildest soothing and astringent applications are called for, in the latter very severe stimulation may be required.

The second point to be considered is of especial importance diagnostically; this relates to the anatomical lesion constituting the eruption; and here we may have four varieties or conditions of eruption; *eczema erythematosum*, *e. papulosum*, *e. vesiculosum*, and *e. pustulosum*. There are also certain other forms of eczema which are commonly recognized, as *eczema madidans*, *e. squamosum*, *e. sclerosum*, and *e. fissum*.

ECZEMA ERYTHEMATOSUM is marked from first to last by the erythema-like character of its lesion: there is always some infiltration, and the surface has a harsh, leathery feel, and may be more or less scaly.

ECZEMA PAPULOSUM.—The lesion is here composed of papules, perhaps existing alone, or combined with the former condition, or with occasional vesicles: many cases which were formerly called lichen are now recognized to be papular eczema.

ECZEMA VESICULOSUM.—Typical vesicular eczema is comparatively rare, and is generally acute; more commonly the vesicles have already broken down into moist surfaces, or hard patches, when presented for treatment. Where the epidermis is thick, as on the palmar surface of the hand and fingers, the vesicles appear as pearly, or boiled-sago-like points; the burning and stinging is generally relieved when vesicles are formed, and often ceases when they discharge.

ECZEMA PUSTULOSUM.—Here pustules take the place of vesicles, either from the intensity of the inflammation, or from the lowered or strumous condition of the patient. As in vesicular eczema, the separate elements are often not visible, and what is called pustular eczema, as seen in "*milk crust*" in infants, presents a mass of yellow crusts only; many cases which were formerly called *impetigo* are now recognized as *pustular* or *impetiginous eczema*. Pustular eczema of hairy parts seldom itches much.

These four conditions may be spoken of as primary lesions of eczema. The following terms are used to express the pathological states presented clinically as secondary to the preceding:

ECZEMA MADIDANS, or *eczema rubrum*, results from a shedding of the epidermis, which may be either the result of a chronic eczematous process, or may occur acutely. The denuded and diseased rete malpighii if irritated may give exit to vast quantities of serum, or the exudate dries into crusty scales, upon a moist base: it is often observed typically on the lower legs.

ECZEMA SQUAMOSUM.—This represents a secondary stage following many conditions: there is a continuous exfoliation of epidermis, generally from a reddened surface.

ECZEMA SCLEROSUM.—This relates to the thickening of skin, which sometimes forms almost the sole feature of the case, as upon the palms and soles, and finger tips. This form leads to the next:

ECZEMA FISSUM, or RIMOSUM presents cracks of varying size and depth, often very painful: upon the ends of the fingers the hardening and fissuring are quite peculiar (*eczéma fendillé*).

The next consideration relates to the location of the eruption, which may be of importance diagnostically and therapeutically; in both of these aspects the eruption will now be considered in the various localities.

ECZEMA OF THE FACE AND SCALP.—The face and scalp are very common seats of the eruption in infants; at first it appears as an itchy, reddened patch, with a few papules which are quickly torn, and a raw, exuding surface results, which soon becomes covered with crusts, to be again torn off by scratching; the surface rapidly increases in size until a large portion of the face and scalp may be affected. In adults the eruption commonly assumes the erythematous or papular forms on the face, or a pustular one upon hairy parts. Erythematous eczema of the face is very frequently mistaken for *erysipelas*, or *erythema*. Papular eczema may resemble *acne rosacea*, or a small, grouped *papular syphiloderm*.

Eczema of the *cyelids* is sometimes a very troublesome affection; its real nature often passes unrecognized, and it is often regarded as a simple blepharitis, and proves rebellious until proper constitutional treatment is instituted. The edges of the lids are thickened and red, and the lashes glued together.

Eczema of the *lips* may exist alone, affecting the skin or the vermillion border; about the mouth erythematons eczema is very rebellious, owing to the constant movements of the part. Eczema of the upper lip is often closely connected with, if not dependent upon, an irritating discharge from the nose.

Eczema of the *ears* is not uncommon in children, and behind the ears it is also common in adults; chronic eczema of the external auditory canal is

not infrequent, but often unrecognized. When acutely affected the ears are greatly swollen, hot and painful; in a chronic state of eczema they are moist, thickened, and itchy. Behind the ear the eruption is very apt to linger for a long time, causing annoying cracks.

Upon the scalp eczema may be seen in three phases: *pustular*, *moist exuding*, and *dry scaly*. Pustular or impetiginous eczema is common in young persons, presenting separate pustules, or more often only crusts, which mat the hair together, with a moist surface beneath. In moist or exuding eczema of the scalp the hairs are often stiffened as though from mucilage; the condition may remain some period of time or may pass quickly into the next form. Squamous or scaly eczema exhibits many phases and degrees; often it is but a later stage of other forms, but it may also appear to be a primary affair, slowly increasing from a moderate scaling, until what at first appeared as a mild dandruff becomes annoying in the extreme, by the itching and the constant shedding of scales.

Diagnosis.—Eczema of the face may be confounded with *erythema*, *acne rosacea*, and *erysipelas;* in the beard, with *sycosis* and *tinea barbæ* (or parasitis sycosis). Upon the lips it may be mistaken for *syphilitic mucous patches*, especially at the corners of the mouth, and for *herpes labialis*. Pustular eczema of the scalp may resemble *phthiriasis*, a *pustular*

syphiloderm, and crusted *favus;* scaly eczema of the scalp resembles *seborrhœa*, *pityriasis*, *psoriasis*, *tinea tonsurans*, and old cases of *favus*.

Treatment.—The treatment of eczema of the face and scalp should be essentially soothing and astringent. Tannin ointment (Formula 87), is especially suited to the scalp; it should be applied freely and left on, the part being washed very seldom, with tar soap, and the ointment reapplied within a few minutes after the washing. In using stimulant lotions subsequently (Formulæ 49, 50, 51), to promote the growth of the hair, care must be taken not to overstimulate.

The face is a difficult portion to treat, and bears stimulation poorly. During more acute stages soothing lotions and ointments (Formulæ 25, 26, 28, 83, 84, 85) are required; later those containing tar are of service to relieve the itching (Formulæ 88, 90). In eczema of the beard daily shaving with Pear's transparent soap, and the continuous application of a calamine or diachylon ointment (Formulæ 84, 94, 95) give the best results.

ECZEMA OF THE HANDS AND ARMS.—The eruption is very rebellious on the hands, owing to their exposure to air and water, the great motion of the parts, and the difficulty in keeping dressings applied. Acute eczema may exhibit much inflammation and considerable œdema: more commonly the eruption is sub-acute or chronic, with the repeated production of

papules, and raw, hard patches, with fissures. On the palms (and soles) chronic eczema presents a stiff, hard surface, reddened or not, with a ragged scaling, and cracks, usually very painful, combined with itching which may be distressing. The diagnosis between this and palmar syphilis is often very difficult; as a rule the eruption of syphilis is more sharply defined than that of eczema, with a decided tendency to clear in the center and to spread peripherally. The margin of the syphilitic eruption is composed of separate elements, papules or tubercles, and the cracks are usually through these; whereas those in eczema may occur anywhere and in any direction through the thickened skin.

Eczema of the arms exhibits the features of eczema elsewhere; at the bends of the elbows it is apt to present evenly reddened surfaces, very itchy, exuding freely when scratched. Elsewhere the eruption is usually papular or in patches of reddened and moderately thickened tissue. A very scattered papular eruption on the forearms should always suggest scabies.

Diagnosis.—Eczema of the backs of the hands may be mistaken for *scabies*, *dysidrosis*, *lichen planus*, and *erythema papulatum;* on the palms (and soles) the condition suggests *scleroderma*, *syphilis*, and *psoriasis.*

Treatment.—This varies greatly with the condition present; in the more acute form of the erup-

tion, envelopment of the hand and arm in a bag containing buckwheat flour is most serviceable, also cooling and astringent lotions and ointments (Formulæ 25, 26, 28, 30, 83, 84, 85). In sub-acute states an ointment with tar is of most service (Formulæ 88, 89). The chronic forms resist severe stimulation, and blistering will often be required. The compound tincture of green soap (Formula 39), well rubbed on with flannel or with a brush, and followed by a soothing ointment (Formulæ 83, 84, 85), will sometimes accomplish much; often this aggravates the trouble, and solutions of caustic potash (Formula 16) used similarly, are best borne. Eczema of the palms is greatly benefited by soaking the part on the surface of very hot water, for a few minutes, and the subsequent application of diachylon ointment (Formulæ 94, 95) spread on lint and bound firmly on; in some cases a mercurial application is of the most service (Formulæ 90, 102).

ECZEMA OF THE FEET AND LEGS.—The eruption in this locality is obstinate because of the relations of the parts to the circulatory system: the dependent position taken for so much of the time tends to produce and keep up congestion, and to hinder absorption. Upon the lower legs the eruption is usually seen in the form of what is known as *eczema rubrum* or *madidans*, exhibiting a red, raw, and tender surface, exuding greatly if irritated, but also tending to cover itself with imperfectly formed epi-

dermal scales and crusts. The itching is often most distressing, and there is frequently great soreness and pain from the accompanying varicose veins. Ulcers of the leg are frequently associated with eczema, and are due to the same causes. Eczema may also appear upon the legs in all the ordinary forms, and is often seen in scattered or grouped papular eruptions; in the popliteal spaces it may be so severe as to impede walking.

Upon the feet eczema often exhibits vesicles, especially on the toes; chronic hard patches also often occur about the ankles, which are very rebellious. On the soles the eruption resembles that on the palms.

Diagnosis.—Eczematous and varicose ulcers may frequently be confounded with the lesions of *syphilis*, as also may the eruption on the soles; eruptions about the toes and ankles of children should always suggest *scabies*.

Treatment.—The treatment of eczema and ulcers of the leg has been much simplified since the introduction of the rubber bandage; it is of almost universal application. It is applied directly upon the diseased surface, not too tightly, and worn during the day; at night the surface is gently wiped with a damp cloth and, if necessary, a soothing lotion or an ointment (Formulæ 25, 26, 28, 83, 84, 85) applied. The bandage, having been washed on removal and aired all night, is re-applied while in bed, after the

dressing for the night has been removed, and any ointment gently *wiped* off; as grease and glycerine soon destroy the bandage. In more chronic cases the application of caustic potash, or green soap, alone or in solution or with tar, or the liquor picis alkalinus in varying strength (Formulæ 16, 38, 39, 42) are of service, always to be followed by soothing applications (Formulæ 83, 84, 85). Eczema of the feet yields well to tar and zinc ointment, and later to tannin and diachylon ointments (Formulæ 87, 88, 94, 95).

ECZEMA OF THE ANUS AND GENITAL REGION is most intractable if wrongly treated, and very manageable if all is done rightly. Internal treatment is specially important. The eruption manifests various degrees of severity, from a moderately itchy, soddened condition around the anus, to a severely raw eczematous surface, involving many square inches of this region. Many cases formerly called *prurigo podicis* and *prurigo scroti* are now recognized as eczema. The thickening is very manifest upon the scrotum, and the element of cracking is very common at the anus; the itching from eczema in this region may be excruciating.

Diagnosis.—This is generally not difficult; the most important lesion to bear in mind is the ringworm of this region, *tinea trichophytina cruris*, the so-called *eczema marginatum*, already described under parasitic diseases. *Phthiriasis pubis* should be

excluded, also *syphilitic lesions, mucous patches* and others; likewise *scabies*, which may give rise to inflamed points on the penis.

Treatment.—The internal and dietary treatment are of the greatest weight, but proper local measures are also very important, both in regard to the actual measures employed and the method of their use. The most universally serviceable application in chronic eczema of this region is the ointment of tar and zinc (Formula 88); this is to be spread thickly on the woolly side of lint and bound on the parts, after they have been soaked for a few minutes with a cloth dipped in very hot water. The dressing is to be changed twice daily, but the hot water applied only at bed-time. Other local measures are also of service, as the calamine lotion (Formula 25), followed by the free application of Fuller's earth or other powders (Formulæ 78, 80); later, stimulation with the compound tincture of green soap (Formula 39), followed by a soothing ointment (Formulæ 83, 84, 85). Especial attention must be paid to the condition of the liver, bowels, and kidneys, and sulphur with cream of tartar taken freely at bedtime is a very important aid.

ECZEMA OF THE TRUNK AND GENERAL ECZEMA.—On the body the eruption may take many phases; papular and erythematous eczema are most common. Beneath the breasts raw, moist surfaces are apt to form very rapidly, and disappear quite as

quickly under proper measures. The region of the nipple is sometimes the seat of a condition resembling eczema, to which the name of "*Paget's disease*" has been recently given, which is in reality an epithelial degeneration, frequently ending in cancer. The umbilicus is occasionally the seat of an obstinate eczema, and the axillæ are sometimes affected to a very troublesome degree; boils and abscesses are not uncommon in the latter region, in connection with eczema.

General eczema of the entire body, head and limbs is always a serious affair, especially in adults, and indicates profound depression.

Diagnosis.—Eczema of the trunk may be mistaken for *psoriasis*, *tinea*, *syphilis*, *zona*, and *pityriasis rubra*. Eczema of the breast for "Paget's disease" or *epithelioma*, and *scabies;* eczema of the axillæ for *ringworm* of this region.

Treatment.—The local measures do not differ from those detailed in regard to other portions of the body; baths (Formulæ 1, 2, 3) are particularly valuable, together with the subsequent free use of an ointment, or cod-liver or linseed oil, with or without oil of cade (Formula 41). Laxatives and cooling alkaline mixtures (Formulæ 52, 53), followed by powerful tonics, are required.

INFANTILE ECZEMA.—In children under five years of age the eruption of eczema is exhibited in its typical form, as far as the acute, raw, and exuding

aspects are concerned. Beginning with a comparatively small amount of papular or erythematous eruption, the condition may rapidly extend until the entire scalp and face, also the arms, legs, and much of the body, is the seat of a diseased cutaneous action. The surface of exposed parts is generally covered with crusts, which are frequently torn off, leaving a bleeding and exuding corium; covered parts become more dry, generally adhere to dressings, and when these are forcibly removed exhibit a reddened, papular surface, with numerous excoriated points, which sometimes bleed. The itching of infantile eczema is generally frightful, and the little sufferers become frantic in endeavors to get relief.

Treatment.—In the local treatment of infantile eczema the utmost care must be exercised to avoid over-stimulation of the affected part; the measures must be soothing and astringent, and relief to the itching is to be looked for rather in carefully directed internal and dietary treatment and proper protection of the part than in applications which have any very great anti-pruritic effect. The tar and zinc ointment (Formula 88) is a safe and valuable remedy if efficiently applied, spread on lint and bound on. This should be removed twice daily, and on exposed surfaces the ointment is reapplied as often as rubbed off, even many times daily, to the entire exclusion of the air. Zinc and bismuth ointments, to which a little camphor or oil of cade

may be added (Formulæ 85, 86, 89), are also efficient remedies. Air and water are highly injurious to eczematous skin; the first is kept away by means of the ointment, the other by force of will. Eczematous skin should not be washed; when this is absolutely necessary the part should be again instantly and thoroughly protected by ointment, after being very carefully and rapidly dried, without friction.

Etiology.—Eczema appears to be hereditary in a comparatively small proportion of cases; it is not caused by infection or contagion; it is not directly due to malaria, but this element may be of importance in certain cases; it is never wholly produced by external irritative agents without additional internal conditions; as far as is known, it is not caused by any single article of diet; there is no one efficient, recognizable cause to which it can be always attributed.

The causation has to do with two classes of elements, constitutional and local, though the direct effect of the latter is often very difficult to trace. Eczema is eminently a disease of debility; this may be of three kinds, assimilative, nutritive, and nervous, or, as more commonly spoken of, gouty, strumous, and neurotic. By far the larger share of patients with eczema exhibit what has been known as the gouty state; that is, a condition of system tending to gouty development, manifested by the most

varied signs of imperfect assimilation and disintegration. The strumous and nervous states act also efficiently as predisposing causes of eczema.

Local causes are found in any agencies which irritate and inflame the skin. Many cases seem to depend upon occupation, but it must ever be remembered that these local agents only suffice to cause an eczema in a very few of the persons exposed to them.

Treatment.—The treatment of eczema is a very broad subject, reaching deeply into general medicine. Wilson has well said that "the highest and best qualities of medical art and science must be put in practice with foresight and discretion for the treatment of an eczema." There is no specific for the disease; arsenic will not cure it; the general state should be most rigidly studied, and remedies and measures suited thereto. Most eczema patients are benefited by alkalies, combined with bitter tonics (Formulæ 52, 53, 54, 55), together with judicious regulation of the action of the liver and the bowels (Formulæ 65, 66), although much purgation often does harm. Tonics are required later (Formulæ 58, 59, 60, 64), and of these iron, strychnine, arsenic, and cod-liver oil hold the first place. But harm can often be done by tonics if the emunctories do not act properly; the action of the skin as an organ must never be forgotten, and alkaline baths (Formulæ 1, 2, 3, 104) are of value in most cases of eczema.

Diet and hygiene are of the utmost importance; the benefits of most careful regulation of the diet are especially noticeable in infantile eczema, but the ill results from late errors in diet may be observed in almost all eczema cases. Sweets and starches in excess must be avoided, and fats encouraged. Exercise is all necessary in eczema.

The local treatment has already been detailed in regard to the eruption in different localities; a few words may be added in reference to the principles governing its use. The main point to be remembered is the irritable nature of eczematous skin, and the danger of using too severe measures; it is far easier to increase the stimulation as required than to soothe a skin which has been unduly excited. In chronic eczema, however, very severe measures, even scrubbing with a brush and green soap, may be required, but the subsequent treatment must be soothing.

Air and water are irritating to skin affected with eczema; the effort must be made, therefore, to exclude the former by proper dressing, while the latter is avoided; if washing is employed the part is to be at once protected by a proper dressing. Too frequent washing of an eczematous part will often keep up the eruption in spite of proper local measures.

The mode of making local applications is often of great importance; as a rule ointments which are intended to be protective should not be rubbed on the

diseased part, but spread on the wooly side of lint, and kept in close apposition to the diseased surface. But in keeping them applied care must be exercised that the part be not overheated by warm wrappings.

For more acute eczema, powders are applicable, and buckwheat flour forms one of the best dressings possible. Lotions which leave a powder on the skin (Formulæ 25, 26, 27) are also very grateful; some skins are irritated by the glycerine often used in them, which may then be replaced by almond emulsion. In sub-acute and chronic conditions powders and mild lotions are almost useless, and ointments are called for, soothing, astringent, or stimulating; these are often combined with stimulating lotions, especially those containing tar (Formulæ 16, 39, 40, 42), the lotion being wiped gently off with a damp cloth, if it burns.

Many mistakes are often made in endeavoring to relieve itching, stronger and stronger applications being employed only to the aggravation of the eruption, often, indeed, when the mildest remedies will give relief. Tar and carbolic acid (Formulæ 84, 88) are valuable antipruritics; the liquor picis alkalinus (Formula 42), diluted ten times or more, is very serviceable, also chloral and camphor, in powder or ointment (Formulæ 81, 105). The tincture of gelsemium, taken internally in doses of ten drops, repeated and increased, is often of great service, but is not well borne by every one.

In the treatment of eczema, more is to be accomplished by a careful study of the patient in every aspect, and the adaptation of remedies suitable to the condition found, than by the employment of any special prescription which is supposed to be of value in the disease, or which is recommended by ever so high an authority. Attention to details is of the first importance in eczema, and the good effect of even the best remedies may be frustrated by failure in some particular in the management of the case, while the best local application will often fail of its end, or even do harm, if wrongly employed.

Dermatitis. This term is employed to designate inflammation of the skin from causes which are outside of the economy; these may be either local irritants, or articles taken into the system, as food, drugs, or poisons. The lesions may be most varied, from the erythematous condition caused by heat or by mustard, to the large bullæ sometimes following the internal administration of iodide of potassium. Five varieties of dermatitis are recognized: *dermatitis calorica*, *d. traumatica*, *d. gangrænosa*, *d. venenata*, and *d. medicamentosa*.

DERMATITIS CALORICA.—The effects of heat and cold upon the skin vary with the individual and the degree of caloric; they exhibit various degrees of severity, from the milder sunburn and frosting, to a bullous eruption, or even death of the part.

DERMATITIS TRAUMATICA.—Mechanical injury

to the skin produces various lesions, from the mild congestive state caused by friction of the clothing, to pustular lesions due to scratching, or abrasions due to violence. The eruptions produced by lice and the itch mite are in reality dermatitis, but are described as phthiriasis and scabies. What is commonly known as *intertrigo* is a local affair due to irritation of the parts by confined and acrid secretions, with friction.

DERMATITIS GANGRÆNOSA.—Under certain circumstances gangrene affects the skin in circumscribed patches; this may appear to occur spontaneously, or as the result of injury, or it may follow lesions of nerves, even those which are far distant.

DERMATITIS VENENATA.—Various external irritants are capable of exciting inflammation of the skin, often to a very severe degree; such are mustard, cantharides, mezereon, arnica, thapsia, tartar emetic, croton oil, and other substances used in medicine; also certain dye stuffs, notably those from aniline and arsenic; likewise certain plants, especially the rhus toxicodendron or *poison ivy* or *oak*, and the rhus venenata, or *poison sumaç*. These artificial eruptions at times resemble acute eczema or erysipelas so closely that an immediate diagnosis is almost impossible. The eruption from the poison ivy and sumac is papular or finely vesicular, accompanied with much redness and burning, and the distress from it may be very great. It is usually sym-

metrical, on both hands and arms, and the face is generally affected, also the male genitals; it is far more common in children, and especially in those of light complexion and hair; often of a group of children of the same or different families the dark ones will escape, while those of fair skin will be affected.

All these artificial eruptions tend to spontaneous recovery, if the cause is removed and the parts protected, but in a certain number, thus disposed, eczema will result; in some cases the eruption from poison ivy and sumac will return very readily on each exposure, and instances occur where even riding by the plant when in flower will suffice to excite a fresh attack.

DERMATITIS MEDICAMENTOSA.—This term relates to the eruptions produced upon the skin by the ingestion of certain drugs: facts in regard to seventeen drugs have been collected by Van Harlingen,* to which full study, with a complete bibliography, reference may be made, as also to a careful presentation of the subject in Duhring's Treatise on Diseases of the Skin. The drugs reported as having occasionally given rise to eruptions are as follows: arsenic, belladonna, bromine, cannabis indica, chloral, copaiba, cubebs, digitalis, iodine, mercury, opium, phosphoric acid, quinine, salicylic acid, santonine, strychnia, tar, carbolic acid and turpentine.

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* Archives of Dermatology, Vol. vi., No. 4, October, 1880.

The eruptions caused by drugs vary greatly, from a slight erythema to papules, vesicles, pustules, bullæ, and even fungoid masses, as occasionally seen from bromide and iodide of potassium. At times they resemble very many diseases of the skin; the mottled eruption from quinine and copaiba may be mistaken for measles or the macular syphiloderm; the pustular eruption from iodides and bromides resembles syphilitic and other eruptions, and the purpura from iodide of potassium can hardly be distinguished from ordinary purpura. The lesions thus produced are liable to such variations that they cannot be detailed here; but, although they are rare effects, their possibility should always be borne in mind, especially if an eruption presents anomalous features. Under this head must also be classed the transient eruptions sometimes caused by the ingestion of certain articles of diet; thus strawberries, or bananas, etc., will in some persons invariably cause an urticarial eruption, in others only under certain conditions. Stale fish, mushrooms, and various articles of food at times excite erythematous and urticarial conditions of the skin.

In connection with the forms of dermatitis mentioned, *feigned eruptions* should ever be borne in mind, that is, lesions artificially produced by the patient for the purpose of deception. These generally occur in hysterical women, and a number of authentic cases are on record; the eruption may take

the form of bullæ, produced by acids, or abrasions of various degrees. Their true nature can usually be detected, suspicion first arising from their failure to correspond with recognized types of disease.

Treatment.—The indications for treatment of all the forms of dermatitis are simple, namely, removal of the cause and protection of the affected parts; there is more danger of doing too much than too little. The eruptions from poison ivy and sumac are sometimes troublesome, as the poison seems to penetrate the skin and the eruption continues some time after what was perhaps a brief contact with the plant. Cooling lotions (Formulæ 25, 26, 27, 28, 48) are most acceptable, followed later by slightly astringent ointments (Formulæ 84, 87). Duhring speaks of the fluid extract of grindelia robusta diluted thirty or forty times, as the best remedy. The eruptions caused by dyes in gloves, socks, etc., will often prove very troublesome; they are to be treated locally as an acute eczema.

CHAPTER XV.

CLASS IV. EXSUDATIONES.—EXUDATIVE OR INFLAMMATORY AFFECTIONS.—(*Continued.*)

VII.—SQUAMOUS ERUPTIONS.

Three separate conditions are thus grouped, *dermatitis exfoliativa* (or pityriasis rubra), *psoriasis*, and *pityriasis capitis:* in these the scale, if it is not a primary lesion, is an inseparable element in the eruption.

16. **Dermatitis exfoliativa,** or pityriasis rubra. By this is understood an inflammatory, non-contagious affection, involving a greater or less extent of surface, either continuously or in patches, characterized by a red, congestive color, and the production of a greater or less amount of branny scales. The process appears to be simply a congestive and slightly inflammatory condition, which goes only to a desquamative stage, without thickening or exudation, as in eczema, and with comparatively little burning or itching.

Various degrees and grades of this affection have been observed by different writers; Hebra is in-

clined to regard as pityriasis rubra only cases where a large share of the body is affected, and where the process thus becomes a severe one, generally fatal. Other observers have recorded milder degrees of the same condition, and with favorable prognosis; in certain cases the disease is limited to patches, to which the name *pityriasis maculata et circinata* has been given by Bazin, Duhring and others, while in other instances the eruption which has occupied larger tracts, has been characterized by a tendency to recur again and again.

Diagnosis.—Many eruptions are characterized by redness and scaling, but the disease under consideration, when considered in its whole course will be found to differ materially from all other affections. It is most likely to be confounded with more or less general *squamous eczema*, also with *psoriasis*, *pemphigus foliaceus*, and *lichen ruber;* also possibly with *tinea circinata* and *tinea versicolor*.

Treatment.—The eruption is rebellious to all therapeutic measures, and no single line of treatment can be recommended with prospect of great success. Milder cases yield to alkaline and tonic remedies (Formulæ 52, 53, 58, 59), together with baths and emollients (Formulæ 1, 2, 3, 41, 104); in the more severe cases constant envelopment in oil, as the linseed or cod-liver oil, affords the most promise.

17. **Psoriasis.** Synonyms: *Lepra vulgaris; Lepra*

Willani; Alphos; Dry or Scaly tetter. Psoriasis is a non-contagious affection of the skin, exhibiting slightly elevated, reddened patches, of varying size and shape, generally circular, covered with a greater or less quantity of dry white scales, heaped together, and having a peculiar, shiny, bran-like appearance when removed. Beneath the scales there is found, on scraping, a little pellicle which comes off in a sheet, and is soft and pliable; the reddened surface beneath this may be made to bleed very readily.

The amount and degree of eruption in psoriasis may vary greatly with the case, from a very few small patches, perhaps not covering in all one square inch, to an eruption affecting the larger share of the entire integument. The eruption selects by preference the extensor aspects of the limbs, and will generally be found upon the elbows or the front of the lower limbs; the scalp and top of the forehead, also the loins, are favorite seats of psoriasis. Certain other portions are rarely affected, as the genital region, backs of the hands and feet, and face; while the palms and soles are almost never attacked, it may be said, never, without a development of the eruption elsewhere.

Various designations have been given to the different appearances which the eruption of psoriasis presents, all based upon the mode of development of the lesions. The first appearance is always in the

form of a minute red spot (*psoriasis punctata*), which speedily becomes covered with a white scale, looking as if mortar had been spattered on (*psoriasis guttata*). The tendency is always to increase in size peripherally, and when a little larger (*psoriasis nummularis*) there is a fancied resemblance of the round spots to coins; as the patches also tend to clear in the center, a ring-like appearance results (*psoriasis orbicularis* or *circinata*). In certain cases these rings may coalesce, and so clear up in portions as to produce gyrate forms (*psoriasis gyrata*); when large surfaces are involved the name *psoriasis diffusa* or *aggregata* has been used, and *psoriasis inveterata* is applied to express obstinacy. All these represent the same eruption in various forms.

The term *lepra* was formerly applied to the eruption when forming the larger patches seen in *psoriasis nummularis* and *orbicularis*, the most typical forms of the eruption; at present the term lepra is used to designate leprosy, elephantiasis Græcorum, an entirely different affection, with which this has nothing in common. Willan applied the term psoriasis also to many conditions now recognized to be forms of eczema; these two diseases are to be entirely separated, eczema does not become psoriasis when a scaly stage is reached, although occasionally the two may be combined, and sometimes the one may develop into the other.

Psoriasis presents quite different aspects as it oc-

curs in strumous or gouty persons; in the former the scales are thick and apt to become heaped up, and the base is less congested, while in gouty subjects the scales are thin, often scanty, and the base is very red; the former itch but little, the latter may prove very troublesome from this symptom. The strumous cases are generally seen in children and young persons, and yield more readily to cod-liver oil; in the gouty cases, which are rebellious, alkalies, colchicum, and arsenic are most useful.

Diagnosis.—Psoriasis may be mistaken for *eczema, favus, lichen planus, lupus erythematosus, pityriasis capitis, seborrhœa, syphilis, tinea trichophytina*, and *xeroderma;* generally, sufficient care will suffice to demonstrate features which are quite typical in every case of psoriasis. Upon the scalp the diagnosis from squamous eczema may be difficult, and certain cases of scaly syphilis resemble it very closely.

Etiology.—Little or nothing is known of the actual causes of psoriasis: it has no connection with syphilis, or leprosy, it is not contagious, and no single article of diet, nor any local cause will produce it. It is met with about equally in males and females, seldom appears before puberty, although children may be affected, and very rarely develops for the first time after forty years of age. Very many psoriasis patients appear to be in perfect health, but in most of them faulty assimilation and disintegration can be made out.

Treatment.—This is often very unsatisfactory, the eruption proving most rebellious, and recurring again and again, even in the face of energetic measures. Internal treatment is necessary, as well as local, for the eruption will pretty certainly return if removed by local means alone.

The strumous cases, as stated, do best under tonics and cod-liver oil given freely. Gouty cases require alkalies, which need to be administered with a free hand, while at the same time or later, arsenic, strychnia, and other tonics are required. The best alkalies are the acetate and bi-carbonate of potassium, and liquor potassæ, combined with bitter tonics (Formulæ 53, 54, 57, 59); the mineral waters do not seem to act as well as these. Later, arsenic is of service; but in the more acute and itchy conditions it will often aggravate the eruption.

Local treatment will sometimes be followed by most excellent results, and at other times will produce almost no impression upon the eruption; it is very questionable if local measures alone have ever been followed by permanent cure. The agent having the most decided effect upon psoriasis is chrysophanic acid, used in the form of ointment (Formula 98). Under its use the spots will speedily become smooth and white, while the surrounding skin is stained of a purplish hue, deepening into mahogany color; if its use is discontinued too soon the spots will reappear; to be effectual it should be per-

sisted in until the skin is evenly colored. But there are serious objections to it, from the staining of the skin and clothing, and the irritation often produced; on delicate skins it will sometimes cause very considerable inflammation, and should always be employed with caution at first; pyrogallic acid (Formula 99) has been substituted for it with fair results, and does not stain so badly; it must be used with some caution, as serious systemic effects have been reported from its very free employment. Mercurial ointments (Formulæ 91, 92, 93) rank very high, white precipitate being one of the best; sulphur preparations also have considerable power over the eruption, and of these Vlemingkx solution (Formula 37) is most powerful, but often proves irritating. Tar will often control the eruption, and may be employed in various ways, pure or in combination with other agents; the liquor picis alkalinus, and the compound tincture of green soap (Formulæ 39, 40, 42) are very serviceable.

To be effective local applications should be made directly to the diseased surface deprived of scales; for this purpose the patches are scrubbed or washed to free them, or alkaline baths are given (Formulæ 1, 2, 3), after which the appropriate remedy is well rubbed into the affected parts. Mechanical removal of the scales, and even the scraping of the surfaces until they bleed, before the application, is sometimes followed by the best results. In more acute stages

and phases the eruption must be first treated by soothing measures, as described under eczema.

18. **Pityriasis capitis.** Synonym: *Alopecia furfuracea.* Several diseased states give rise to a scaly condition of the scalp, causing the so-called *dandruff* or *dandriff;* these are *seborrhœa*, *eczema*, *psoriasis*, *tinea tonsurans*, and *pityriasis capitis;* the scales which fall in these may be very much alike, but careful examination of the diseased surface will differentiate the conditions.

Pityriasis capitis is an affection of the epithelial portions of the skin, exhibiting excessive growth and rapid exfoliation. The surface is seen to be white, and the scales are pearly; not only are they thrown off from the surface between the hairs, but the epithelial covering of the hair follicle takes part in the process, and the hair is seen to be surrounded by a small sheath of scaly formation, which will often be observed encircling the hair at any point, as it has slid on it after being detached. There is no moisture at any time, nor crusts; there is no redness of the base, nor thickening, nor itching, as in scaly eczema; nor are the scales greasy as in seborrhœa. The nutrition of the hair remains fair, and the latter may be quite thick, although in time it falls; the annoyance is caused mainly by the mass of branny scales which dusts upon the clothing at every movement.

Treatment.—To be successful a thoroughly tonic internal treatment must be given, including careful attention to all the functions of the body; iron, arsenic (Formulæ 52, 58, 59), cod-liver oil, and every means of improving the nutrition must be resorted to. Locally, occasional shampooing with soapy solutions (Formula 38) or washing with tar soap, followed by tannin ointment (Formula 87), and later by stimulating hair washes (Formulæ 49, 50, 51) can, with proper internal measures, entirely remove this annoying affection.

VIII. PHLEGMONOUS ERUPTIONS.

This group is characterized by localized inflammatory action, resulting often in destruction of tissue and in the discharge of a slough of necrosed substance, the process being deeper than in the eruptions classed as pustular. Four affections are placed here, *furunculus*, *anthrax*, *abscessus*, and *hordeolum*.

19. **Furunculus.** Boils or furunculi consist of circumscribed points of inflammation of the corium and connective tissue, terminating in suppuration and the formation of a central slough or core; when this escapes the little abscess tends to heal. Boils seldom come alone, but often in considerable numbers, and frequently one will succeed another for a considerable period; the condition or state exhibiting furunculi is known as *furunculosis*.

Etiology.—The causes of boils are unknown, as far as any single element is concerned; they are always indications of lowered vitality, although the impression is very common that boils are salutary, and either indicate excess of health, or are in themselves healthful. The local cause can sometimes be found in local irritation, but often no adequate reason for their appearance can be discovered.

Diagnosis.—There are few conditions which can be mistaken for boils; *ecthyma*, and the large *pustular syphiloderm* sometimes resemble them, but the hard, painful inflammation of a boil is characteristic; from *carbuncle* it is differentiated by its size.

Treatment.—This should always be directed towards rectifying general errors in nutrition; tonics are always called for (Formulæ 52, 55, 58, 59, 60), together with improved diet and hygiene. The preparations of sulphur have the most direct control, and of these the most powerful is the sulphide of calcium, one-tenth to one quarter grain, from three to six times daily; the hyposulphite of sodium is also efficacious. Locally, irritation should be carefully avoided; such common remedies as soap and sugar to "draw" the boil, do harm and cause pain. Very much relief can be obtained from an ergot ointment, a drachm to the ounce, with a little oxide of zinc, applied both when forming and after rupture; when tense and hard, flaxseed meal poultices

are best, but if too long used they rather encourage the formation of new boils.

20. **Anthrax.** A carbuncle is an inflammation of the skin and subcutaneous tissue, exhibiting dusky redness and brawny hardness, with deep, boring pain, and the subsequent formation of a large slough, with numerous sieve-like openings through the skin, discharging a small amount of pus; later the entire center sloughs out to a varying extent, leaving a granulating surface which heals with a scar.

The most common location for a carbuncle is the back of the neck, but they may also be observed upon any portion of the body; it is always a serious affair, if of any size, and may prove fatal in those who are debilitated. The cause is unknown, other than such as produce furuncles.

Diagnosis.—The red surface might be mistaken for *erysipelas*, but the hardness soon determines the diagnosis.

Treatment.—Tonic treatment should be given from the outset, and the strength husbanded by the best of dietary and hygienic conditions, care being taken that the bowels and kidneys act rightly, especially in gouty subjects; stimulants, quinine, tincture of iron, etc., are all called for, and sufficient opium to secure rest at night. Sulphide of calcium given as for boils, has been effective in my hands in diminishing the suppuration. Locally most authorities agree that benefit results from pressure, as with

lead plaster, early in the disease, while poultices are required later; the matter of poulticing can be overdone, and it should not be continued too long.

21. **Abscessus.** Cutaneous abscesses are often seen on the face in connection with indurated acne, where large fluctuating collections of grumous pus are formed; they are also seen on the scalp of infants, especially in hot weather, and in connection with eczema. In the axillæ the abscesses often appear to be wholly cutaneous, and such are probably connected with the sweat-glands (*hydro-adenitis*).

The *treatment* is to be conducted on surgical principles, and often that suitable for eczema gives the best results.

22. **Hordeolum.** Styes are closely related to boils, and consist of an inflammation in and around the meibomian glands, characterized by a painful swelling which rapidly suppurates, and disappears very quickly after the discharge of its contents; there generally is no central slough. Styes are very frequently associated with eczema and boils, and less commonly so with acne. They seldom come alone, but often in a succession, even of a dozen or more. They are always an indication of lowered vitality and disordered system; the principles of treatment applicable to eczema and boils are of most service.

IX. ULCERATIVE AFFECTIONS.

Ulcers are very generally secondary lesions, the result of some previous pathological process, as in the case of epithelioma, those connected with syphilis, etc., and are properly considered and classified in connection with the diseases to which they belong. There are, however, several ulcerative lesions which are primary, such as ulcerative onychia, and simple ulcer of the leg, and the chancroidal ulcer; the chancrè, the primary lesion of syphilis, belongs to and is considered in connection with that disease.

23. **Onychia.** Many conditions affect the growth of the nail, such as eczema, psoriasis, and pityriasis rubra, and in syphilis there may be inflammatory or other disease from new deposit around or near the nail; ring-worm and favus also attack the nails, rendering them brittle *(onycho-mycosis)*.

True onychia is most commonly of traumatic origin, as in ingrowing toe-nail, or sometimes results from occupation; it is characterized by a suppurative inflammation of the tissues at the root of and around the nail, which may proceed to considerable ulceration, especially in strumous subjects, if not properly treated. When fully developed the tissues around are infiltrated and the nail seems sunk in a mass of fungoid granulations.

Diagnosis.—It is very important to distinguish

syphilitic onychia from the non-specific form; other than this there is no difficulty in diagnosis.

Treatment.—External irritation must be removed; when a badly fitting shoe is the cause, cure is impossible without a change. Soothing and astringent treatment generally suffices to remove the difficulty; an ointment of the liquor ferri subsulphatis, a drachm to the ounce, acts well, applied thickly after soaking the part in very hot water. Strumous onychia yields fairly to the application of powdered iodoform.

24. **Ulcus.** Two kinds of ulcers are here recognized, *ulcus simplex*, or simple ulcer, and *ulcus venerum*, the venereal ulcer or chancroid.

SIMPLE ULCER.—This is best typified in varicose ulceration of the lower leg. When fully formed this exhibits a painful, red, ulcerating surface, with hard, brawny and everted edges; it tends to bleed easily and gives rise to only a moderate, sanious exudation, quite different from the purulent, fetid discharge from syphilitic ulcerations. Varicose ulcers are very commonly associated with more or less eczema, both being due to the same causes; they are more apt to be single than those of syphilis, are more commonly found on the lower portion and anterior surface of the leg, whereas in syphilis they generally exist on the sides and back of the calf, also on the upper third, and often about the knee.

Ulcers may form on any portion of the body, from injury, and as bed sores may give much trouble.

VENEREAL ULCER, OR CHANCROID.—This is entirely distinct from the initial lesion of syphilis, or the chancre, and is a local sore produced by inoculation with a contagion whose nature is unknown: inflammation is commonly excited in neighboring glands producing bubo, but the system is never infected by the chancroid. The forms which the ulcer takes are various, but its main features are the following: 1. Its brief incubation, it appearing almost immediately after inoculation; 2. Its copious, purulent secretion, which is anto-inoculable; 3. Its soft, ulcerated red base, with sharply cut and often undermined edges; 4. Its generally multiple character and tendency to spread; and, 5. The inflammatory engorgement of neighboring glands, with the tendency of the swelling to become red, painful, and to suppurate.

Diagnosis.—It is often very difficult to differentiate chancroid from the *true chancre*, and often *herpes progenitalis* and *balanitis* will simulate it closely; *eczema*, *psoriasis*, *lichen planus*, and *scabies* may also affect the penis.

Treatment.—Ulcers of the leg are best treated by the rubber bandage, as directed for eczema; very commonly constipation and defective urinary excretion exists, which must also be remedied. Varicose ulcers are most frequently found in those who stand

a great deal, as in cooks, laundresses, bakers, bartenders, and car-drivers, and are rarely seen in those who walk, even though they remain long on their feet, as postmen. The therapeutic hint from this is that the more that walking can be encouraged, if at all well borne, the more quickly and permanently will the ulcers be healed; this is especially true while wearing the rubber bandage, by means of which patients, who before were almost helpless from painful ulcers, can often walk long distances. Strapping with adhesive plaster also answers fairly, and mildly stimulating and astringent ointments (Formulæ 94, 95, 97) are of service in some cases. The treatment of the venereal ulcer relates to destroying the poison and modifying the diseased action; nitrate of silver is almost useless for this purpose, and the stronger acids, sulphuric or nitric, or the actual cautery are effective, with subsequent dressings of finely powdered iodoform or solutions of carbolic acid or zinc.

CHAPTER XVI.

CLASS V. HEMORRHAGIÆ.—HEMORRHAGIC AFFECTIONS.

THREE diseases are here grouped, *purpura*, *hæmatidrosis*, and *scorbutus*, all characterized by the escape of blood from the capillaries of the skin.

1. **Purpura.** Synonyms: *Land scurvy; Purples.* Three varieties of this disease are recognized, purpura simplex, p. rheumatica, and p. hemorrhagica, all exhibit hemorrhagic patches of various sizes and shapes, slightly raised or level with the skin, which do not disappear upon pressure; appearing first of an almost arterial red, they quickly deepen in color, until, before they have entirely disappeared, they have passed through various changes, from purple to greenish brown, and yellow.

PURPURA SIMPLEX.—This is commonly seen first upon the lower limbs, and also upon the forearms; the eruption usually develops symmetrically, and is prolonged by successive crops. There are few constitutional symptoms, though the patient generally feels languid. Purpura sometimes occurs during the administration of iodide of potassium.

PURPURA RHEUMATICA, or peliosis rheumatica resembles erythema multiforme almost more than purpura. It is characterized by rheumatic pains, affecting principally the large joints, and the subsequent appearance of small, sharply defined macules, often first about the knees, which are found to be hemorrhagic, and not to disappear on pressure.

PURPURA HEMORRHAGICA.—This is a severe affection exhibiting hemorrhages from various mucous surfaces as well as in the skin. There is prostration and the sudden appearance of hemorrhagic spots of varying size, often quite large and purplish, not disappearing on pressure.

Diagnosis.—Purpura may resemble *eczema*, *erythema multiforme* and *nodosum*, and *syphilis;* the hemorrhagic variety may be mistaken for *scorbutus*, and *hemorrhagic small pox*, often wrongly called *purpura variolosa* and *black measles.*

Prognosis.—Purpura simplex is generally a mild affair, and yields well to treatment; purpura rheumatica is much more obstinate; purpura hemorrhagica is not unfrequently fatal.

Treatment.—Ergot is the chief remedy of service in purpura, although quinine in free doses is most effective in the rheumatic form; ergot should be given boldly, and if necessary by hypodermic injection. Tonic treatment is also indicated.

2. Hæmatidrosis. Synonyms: *Ephidrosis cruen-*

ta; Bloody sweat. This is a very rare condition, characterized by the escape of blood through the sweat glands; the fluid which exudes may be very watery. It is most frequently seen in hysterical girls with faulty menstruation.

Treatment.—This must be directed against the conditions present; in addition, ergot should be given in doses sufficient to arrest the hemorrhage.

3. **Scorbutus.** Synonym: *Scurvy.* This is a constitutional state of exhaustion, during which hemorrhagic, bruise-like ecchymoses occur upon the skin, generally of some size, together with a spongy state of the gums and subsequent loosening of the teeth; it is due to a deficiency of fresh vegetable food in the dietary, and if unchecked tends to death. There is a leaden color to the skin, malaise and rheumatic pains, and œdema.

Treatment.—The treatment is almost wholly dietary; an abundant supply of fresh vegetables and lime-juice is generally all that is required; tonics are of service later.

CHAPTER XVII.

CLASS VI. HYPERTROPHIÆ.—HYPERTROPHIC AFFECTIONS.

THESE are characterized by an augmentation of some of the normal elements of the skin, and are grouped under five heads: Hypertrophy, A, of pigment; B, of epidermis and papillæ; C, of connective tissue; D, of hair; E, of nail.

A. HYPERTROPHIES OF PIGMENT.

In this group are found five distinct states: *lentigo*, *chloasma*, *melanoderma*, *morbus Addisonii*, and *nævus pigmentosus*; all exhibit hypertrophy of pigment, deposited in varying degree and manner in the deeper cells of the rete malpighii. Their treatment will be considered together.

1. **Lentigo.** Synonym: *Freckles.* This well known deformity consists of deposits of pigment of small size, of a yellowish or brownish color, scattered mainly over the exposed portions of the skin. They are most common in those having light complexions, especially persons with red hair; they

may affect other regions besides those exposed to sunlight.

2. **Chloasma.** Synonym : *Liver spots ; Moth.* This consists of yellowish brown, pigmentary discolorations of various sizes, situated chiefly about the face and neck ; it is most commonly seen in females, but occurs also rarely in males. The surface is smooth and not scaly, unless irritated, and the margins of the patches are quite sharply defined ; the forehead and temples are common localities, also about the mouth. The cause in females is frequently uterine or ovarian disease (*chloasma uterinum*), though it is quite probable that liver disorder is also an important element.

Diagnosis.—It may be mistaken for *tinea versicolor*, also for the *pigmentary syphilide* and *leucoderma*.

3. **Melanoderma.** This relates to various brown discolorations, which may occur from different causes, some local, others constitutional. The effects of the sun are to produce a general darkening of the skin termed *ephelis*, sunburn, or tan ; irritating agents as blisters often leave behind them a considerable discoloration of the integument. Long continued cutaneous congestion and inflammation results in pigmentary deposits, as is observed after eczema of the lower extremities, in old cases of phthiriasis, and after many syphilitic lesions.

Again, pregnancy induces a discoloration about the nipples; cancer causes a general pigmentation, as also melanotic sarcoma, leprosy, scleroderma, etc. A mechanical discoloration of a peculiar leaden or bluish color, is brought about by the long continued internal administration of nitrate of silver, which has received the name of *argyria.* The most remarkable general discoloration of the skin is that connected with disease of the supra-renal capsules, which is such a constant feature in this complaint as to receive a separate name, well recognized, as next described.

4. **Morbus Addisonii.** Synonyms: *Bronzed-skin disease; Supra-renal melasma.* The curious anæmic and cachectic state described by Addison as connected with disease of the supra-renal capsules, has often, as its first symptom to excite serious attention, a peculiar bronzing of the skin; this presents "a dingy or smoky appearance, or various tints or shades of deep amber or chestnut brown, most strongly manifested on the face, neck, superior extremities, penis and scrotum, and in the flexures of the axillæ and around the navel."

Diagnosis.—The only conditions which could be mistaken for this are a general *ephelis* or tanning, *chloasma, leucoderma, pigmentary syphilis,* and *tinea versicolor.*

5. **Nævus pigmentosus.** Synonym: *Pigment-*

ary mole. This consists of a pigmentary deposit of varying size, color, and shape, often of congenital origin, but occasionally developing at any period; generally there are several of these deformities. This form of nævus may exist alone, or be combined with hypertrophy of other elements; the epidermis and papillary layer are often involved, and a rough, warty condition results (*nævus verrucosus*). When hair grows as well, it takes the name of *nævus pilosus*, to be described later.

Treatment of hypertrophies of pigment.—The location of the coloring matter deposited in all the lesions described is beneath the epidermis, either in the rete malpighii, where pigment is found normally, or still deeper. It is difficult, therefore, to remove it by superficial applications, which destroy the life of the cuticle only; if attempted by agents which attack deeper tissues, a scar may result. If effected at all it must be by measures which modify the nutrition and cause the absorption of the pigment, or by repeated removal of the epidermis by such means will induce the newly formed cells to have less coloring matter.

These deformities are, therefore, unsatisfactory to treat; the best means are lotions containing bi-chloride of mercury (Formula 45), and if their action is too strong it can be modified by an ointment (Formula 91). Freckles sometimes yield to these appli-

cations, but are often rebellious; chloasma can usually be thus removed, but is apt to return with a continuance of liver or sexual derangement. But little can be done for the forms of melanoderma; the discoloration accompanying Addison's disease is irremediable; pigmentary moles may be excised or destroyed with strong potassa solutions.

B. HYPERTROPHIES OF EPIDERMIS AND PAPILLÆ.

Six conditions of disease are recognized as belonging to this group, *ichthyosis*, *keratosis pilaris*, *cornu cutaneum*, *clavus*, *tylosis*, and *verruca*.

1. **Ichthyosis.** Synonym: *Fish-skin disease.* This, as the name signifies, is characterized by a dry, hard, scaly condition of the skin to a greater or less extent, which in marked cases may assume an appearance suggestive of the scales of a fish; in severe degrees the papillary layer takes part in the process and may be very considerably hypertrophied.

Most commonly ichthyosis is a congenital disease, several cases often occurring in a family, which, while manifesting but a slight degree of alteration during the first years, may increase greatly during childhood. The eruption is always most developed on the extensor surfaces of the body, especially on the elbows and knees, the flexor surfaces of these joints being spared, however greatly the disease is developed. In milder degrees it has the name *xero-*

derma, dry or parched skin; ichthyosis patients seldom perspire much, and the integument may be so dry and harsh as to crack and cause great pain. Two degrees or forms of the affection are recognized, *ichthyosis simplex* and *ichthyosis hystrix*.

ICHTHYOSIS SIMPLEX represents the milder degrees, where the hypertrophy appears confined to the epidermis; the scales are not thick, and may be laid out in a strikingly regular form, showing the deepest fissures in lines of motion.

ICHTHYOSIS HYSTRIX.—Under this name have been described cases presenting a great hypertrophy of papillæ with heaped up masses of epidermal tissue; this may occur over a considerable extent, or appear in localized patches, sometimes following nerve tracts. Different cases present very different grades of the disease, from a few groups of brownish yellow, wart-like excrescences, to large areas of almost horny productions, sometimes of deep color (*porcupine men*).

Diagnosis.—Milder cases resemble *squamous eczema*, *pityriasis rubra*, and possibly *psoriasis;* but all these have redness of skin, while ichthyosis is characterized by the leaden paleness of the integument.

Prognosis.—The condition is well-nigh incurable, but very great relief and benefit can be obtained by proper treatment. Young subjects should be persistently and actively treated when the disease is developing, as affording the best hope of escaping

le. In very severe cases, the pain and ity may be very great.

nt.—The very free internal and external preparations, as linseed and cod-liver oils, e best results, together with frequent alkaline ths (Formulæ 1, 2, 3).

2. **Keratosis pilaris.** Synonyms: *Lichen pilaris; Pityriasis pilaris.* This is characterized by the appearance of minute, pointed, epidermal elevations about the orifices of hair follicles. The localities most commonly affected are the thighs and backs of the upper arms, but any portion may present the eruption. In three cases I have seen it affecting the hair follicles of the scalp, in one of these the eruption was also very general.

Treatment.—The epidermic mis-growth is best treated by alkaline baths (Formulæ 1, 2, 3), or the free use of ordinary baths and soap, with the subsequent inunction of oily matter, such as cod-liver and linseed oil, and mild mercurial ointment (Formulæ 94, 96).

3. **Cornu cutaneum.** Synonyms: *Cutaneous horn; Cornu humanum; Horny excrescence.* Cutaneous horns in structure resemble very closely the ordinary horns observed on the lower animals; they are usually of small size, but have been observed six inches in length. They are also of varying thick-

ness, and rather abruptly conical. Human horns commonly develop on the head, from any portion of the face, but have also been noted in various portions of the body, and in a number of instances on the penis.

Treatment.—If a horn is torn off it regrows, unless the base is destroyed; it is necessary, therefore, either to excise the entire structure with its base, or to destroy the latter very thoroughly with a deep acting caustic, as the chloride of zinc or Marsden's arsenical paste (Formulæ 10, 14).

4. **Clavus.** A corn is a localized hypertrophy of the epidermis, in the form of a small, rounded mass, horny to the feel, projecting slightly from the skin; its base is conical, reaching down even upon and into the true skin, which may atrophy by the pressure occasioned. Two varieties of corns are spoken of; the *hard corn* when seated on an outer surface, and the *soft corn*, located between the toes, where the parts are kept moist. Both are essentially the same, and both are due almost invariably to wrongly fitting coverings for the feet; both may give rise to serious inconvenience from the darting pains which occur when pressed upon, or even spontaneously.

Treatment.—The first step is to secure a properly fitting shoe, for without this the condition will recur in the same or another situation: often it is necessary to have special lasts made, but it also

may suffice to wear different pairs of shoes on alternate days, that the pressure may come in other places. The ringed protective plasters in common use answer to keep off the pressure in a measure. To remove the corn, soaking with hot water, or a poultice over night will soften the part and admit of its being dug or picked out with little pain. The corn plasters contain various softening agents, such as carbonate of potash and acetic acid; most of them are probably harmless, and often ineffectual. Cutting or rasping frequently suffices, if attention be paid to the foot covering. Soft corns yield to careful separation of the toes with picked cotton and oxide of zinc or tannin ointment, with occasional touching with nitrate of silver, and the relief of pressure by properly fitting shoes.

5. **Tylosis.** Synonyms: *Tyloma; Callositas; Callus; Callosity.* This consists of an abnormal deposit of epidermal cells, forming yellowish or grayish horny masses of varying size and thickness, occurring especially on parts exposed to pressure or friction; this condition is an augmentation of that normally found on the soles and palms, and may at times give much annoyance. It differs from clavus or corn in its diffuse character, the absence of pain except when cracked, and its involving only the outer portions of the epidermis. In rare cases the entire palms and soles may become the seat of this

alteration, and they become thickened and stiff, without any known cause, certainly not from pressure or friction.

Treatment.—No means of cure are known other than mechanically removing the superfluous matter by a knife or rasping. When the soles become greatly hardened from standing, and are fissured and painful, great benefit can be obtained by wearing oiled silk cut a little larger than the sole, within the stockings, day and night.

6. **Verruca.** A wart consists of a circumscribed papillary hypertrophy, with more or less epidermal accumulation : it may vary greatly in size and shape, quite different conditions presenting themselves in different situations. Four varieties may be made out, *verruca vulgaris*, *v. senilis*, *v. necrogenica*, and *v. acuminata*.

VERRUCA VULGARIS.—Common warts are hard, at times almost horny excresences, usually flat on the surface, which is marked by fissures representing the spaces between the hypertrophied papillæ. The upper portion may be pared down, but at a certain point the bleeding papillæ are reached, with the epidermal prolongations between them : the *seeds* of warts are the hypertrophied epidermis masses projecting down between the enlarged papillæ.

VERRUCA SENILIS.—This refers to the multiple, flat, dark yellow or brown, slightly horny elevations,

seen especially about the face, shoulders, and arms of elderly persons.

VERRUCA NECROGENICA. — Peculiar, indolent, warty growths, red at their base, and moderately elevated, sometimes occur upon the hands as the result of dissection wounds; they are very obstinate, and occasionally almost disappear in one place, and regrow near by, or again on the former site.

VERRUCA ACUMINATA.—This constitutes the so-called *venereal wart*, or *vegetations;* it is also known as the *pointed condyloma*, *spitze condylom* of the Germans, to distinguish it from the *broad* or *flat condyloma* of syphilis, with which it has no relation, the latter being a *mucous patch*, *mucous tubercle*, or syphilitic papule in a situation where it is kept continuously moist. Venereal warts occur commonly about the genital and anal regions, and exhibit clusters of papillary growths, generally pointed on the extremity, red and succulent, and often bathed in a purulent secretion; they sometimes attain great size. They are not, strictly speaking venereal, for although the acrid secretions of gonorrhœa and chancroid favor their growth, they are often found entirely distinct from any possible venereal cause, and are observed on other portions of the body than the genital region.

Treatment.—Common warts often disappear spontaneously; they may also be removed very conveniently and satisfactorily by means of the curette or

sharp spoon. Caustics of various kinds may be used, after paring down the wart, care being taken not to cause too much destruction. They disappear slowly under the application of diluted acetic acid, applied morning and night; equal parts of tincture of iron and diluted muriatic acid are also effective. Arsenic internally also, is sometimes followed by their disappearance. Venereal warts, when small, may be snipped off and the base cauterized with glacial acetic or strong nitric acid; when large they will shrivel under the per-sulphate of iron, also under the tincture of thuja occidentalis, and may then be removed by the knife, sharp spoon, or ligature.

C. HYPERTROPHIES OF CONNECTIVE TISSUE.

Six names appear in this division, *scleroderma*, *morphœa*, *sclerema neonatorum*, *elephantiasis* (*Arabum*), *dermatolysis*, and *frambœsia*.

1. **Scleroderma.** Synonyms: *Scleriasis; Sclerema; Dermatosclerosis; Hide-bound skin.* As the name signifies, this is characterized by a hard, sole-leather like condition of the skin of a greater or less extent, which may occasion much discomfort by its rigid, tense, and immovable state, and even pain by its tendency to contract. In some instances the alteration is limited in extent, as in a band along or around a limb or on the body; or again the disease may be

more general, and involve the entire trunk, and cause great distress by interfering with respiration.

Generally the disease commences insidiously, and the hardening is the first feature noticed; in rare cases, and when more general, it may be preceded by chilly feelings and pains, or a numb sensation in the part. When well developed, the skin is of a brownish yellow, waxy look, generally on a level with the surrounding integument, with or without slight scaling, and so stiff, hard, and board-like, that it cannot be pinched up or slid upon the tissues beneath.

Etiology.—This is entirely unknown; the disease, which is very rare, occurs far more frequently in females than males.

Diagnosis.—The only condition which much resembles this is *morphœa*, which by some is considered to be the same affection, more localized; diffused cancer, especially of the trunk, *cancer en cuirasse*, may also be mistaken for scleroderma in this region. Some cases of *eczema of the palm* present a hard condition, which has been wrongly called scleroderma at times, with which it has no connection whatever.

Treatment.—Very little can be accomplished by internal medication; tonics and oily substances are most indicated. Locally, electricity has been found of service, and this, with stimulating inunctions, offers the best prospect of improvement. The disease

sometimes disappears spontaneously; often it remains for a long period stationary, and sometimes it progresses rapidly until even great areas are involved.

2. **Morphœa.** The features of the diseased skin in morphœa resemble those of scleroderma, in the hard, lardaceous character of the affected portion, and the impossibility of pinching it up, and in its dirty, yellowish color. But it differs from that disease in the limited extent and commonly roundish shape of the patches, which are surrounded by a pinkish, congestive border or halo; their outline is often very sharply defined, so that their edge can be detected by palpation with the eyes shut; this contrasts strongly with the indefinite outline of scleroderma, which merges insensibly into the healthy skin.

Writers are by no means agreed upon all the characteristics of morphœa, as sometimes cases present very peculiar phenomena; the process which in its earlier and more characteristic phases exhibits the elements of hypertrophy, and the infiltrated, leather-like skin, may at a later stage show atrophy, although at times resolution takes place, leaving healthy skin. The disease is pretty certainly of neurotic origin, and it is probable that the condition known as *hemiatrophia facialis* is closely related to that under consideration, if not identical with it.

Diagnosis.—The only lesion liable to be con-

founded with morphœa is *scleroderma*, from which it is differentiated by the features given in the accompanying table. The so-called morphœa patches of leprosy have nothing to do with this disease, but are only one phase of its skin lesion.

MORPHŒA.	SCLERODERMA.
Beginning.— Generally from a purplish congestive spot; new ones being often observed in the neighborhood.	Begins insensibly over considerable areas, the hardening being the first change observable.
Margin.—Sharply defined and generally bordered by a congestive halo.	Illy defined edge merging insensibly into healthy skin; no congestive halo.
Extent.—Generally small and circular; and extended patch is generally composed of several others.	Generally greater expanse affected and the neighboring parts involved by extension.
Condition.— Tolerably movable; hardness rather waxy.	Firm and immovable · hardening more diffuse.
Color.—Pretty uniformly of a tawny yellow, old ivory color.	Apt to be irregularly pigmented.
Tendency. — Often disappears spontaneously, or if remaining, generally causes little inconvenience; seldom, if ever, contracts.	Exceedingly persistent, with a tendency to increase and to cause distress by contraction.
Duration.—Increases rather rapidly and sometimes disappears in a few months.	Generally increases slowly, and may remain for years, or until death from intercurrent disease.

Treatment.—Very little can be said in regard to this; tonics, and especially arsenic long persisted in, are of most value, with electricity locally, and mercurial inunctions.

3. **Sclerema neonatorum.** This very rare affection occurs soon after birth, and is generally fatal. It commences with an œdematous infiltration, the skin being hard, tense, and of yellowish, brownish, or even a livid purple hue; it is generally observed first upon the feet or calves, and extends rapidly upwards. There are with the stiffened skin, pain, convulsive movements, scanty urine and failing strength, and the child generally dies with some affection of the lungs.

Treatment.—This has generally proved unsuccessful. External warmth, by baths and other means, with inunctions, together with stimulants, offer the best prospects.

4. **Elephantiasis (Arabum).** Synonyms: *Pachydermia; Bucnemia tropica; Elephant leg; Barbadoes leg.* This disease is to be entirely disassociated from elephantiasis Græcorum, which is now known as lepra or leprosy. It is characterized by an hypertrophic thickening of the skin and subcutaneous tissue, with œdema and subsequent papillary hypertrophy; the most common seat of the disease is one lower extremity, rarely both; next

the genital parts, and rarely the upper extremities and breasts. The disease begins with repeated attacks of cutaneous inflammation like erysipelas, of greater or less severity, leaving some thickening after each accession, until, after a varying period, the part is found to be greatly increased in size, quite hard and more or less pigmented, and in older cases presenting papillary prominences and fissures; the swelling is found to be somewhat œdematous, but the amount of pitting on pressure may be very slight.

Etiology.—The nature of the disease appears to be essentially connected with the lymphatics, which are greatly increased in size, and the mass of the disease consists of hypertrophied connective tissue. The affection is common in warm countries, but occasional cases are met with in every land: its true cause is unknown, but has been attributed by many to the presence of the *filaria sanguinis*, which has been found in the lymph exuded from the vesicles occurring in *lymph scrotum*, a condition which is believed by observers in the East to be identical with elephantiasis. The disease is most frequent between the ages of twenty-five and sixty, and is far more often seen in males than females, and especially among the poor.

Diagnosis.—Certain cases of *chronic eczema* of the feet and legs, may exhibit such a thickening and papillary hypertrophy as to resemble elephantiasis;

the swelling attendant upon *phlegmasia dolens* may also suggest this disease.

Treatment.—When well developed, the rubber bandage affords the best results upon the legs; when the disease affects the genital parts, excision gives almost universally good results. In earlier stages, quinine in full doses is recommended, with diuretics and rest, together with cooling antiphlogistic measures.

5. **Dermatolysis.** Synonym: *Cutis pendula.* This consists of an hypertrophy of the connective tissue elements of the skin of any portion, to such an extent that it hangs in folds; this may be so slight as to cause little annoyance, or may increase to an excessive degree. Any region may be affected, and cases are reported where the condition had assumed monstrous proportions and very curious aspects. The causes of this freak of nature are unknown.

Treatment.—Operation with the knife affords a satisfactory means of relief.

6. **Frambœsia.** Synonyms: *Yaws; Pian; Endemic verrugas.* This is a disease almost wholly confined to tropical climates and principally seen among the colored races. It is characterized by the presence upon the skin of a papulo-pustular eruption, which ulcerates and is followed by exuberant granulations. "The skin remains unbroken until

the yaws attain, perhaps, the size of a small pea, but the cuticle may give way at any time. Then a yellowish, spongy surface presents itself, from which a thin fetid fluid oozes, and this spongy body continues to enlarge, and projects considerably from the surface. Yaws are usually circular in form, and may be seen in the same patient of all sizes, from that of scarcely more than a pin's head to a patch of one or two inches in diameter, and in every stage of their progress. Generally they are separate, but sometimes in groups close together, small and great. Again they may be met with in oval form, but more rarely, in other cases they are irregular in shape, and so close together as to make one mass. It frequently happens that one of these tubercles assumes very large proportions, one or two inches in diameter, or even more, projecting from the skin, like the other yaws, covered with yellow scabs, or having a moist yellow surface, streaked with red."

Etiology.—The disease is one of filth, and is propagated by contagion. Its real nature is unknown, and recent observers agree that it has no connection with syphilis.

Diagnosis.—It is most liable to be confounded with *syphilis.* Under certain circumstances exuberant granulations appear in many diseased conditions, and to these the name framboesia is sometimes wrongly given ; its use should be restricted to the tropical disease here described. *Mycosis* is a

term which has been employed as a synonym for yaws; this name is also used by the French, to represent lymphadenoma, with the title *mycosis fungoïde*.

Treatment.—Cleanliness, good food and hygiene, with tonics, usually arrest the disease; locally, carbolic acid lotion and weak nitrate of mercury ointment comprise the measures required.

D. HYPERTROPHIES OF HAIR.

Two hypertrophic conditions of hair are found here, *hirsuties* and *nævus pilosus;* the former represents excessive hairy growth, either of the entire body, or of parts nominally supplied with long hair, or in situations provided only with *lanugo;* the latter refers to localized hypertrophy of hair, in patches, which generally exhibit, also, hypertrophy of pigment.

1. **Hirsuties.** Synonyms: *Polytrichia; Hypertrichosis; Trichauxis; Augmented hairy growth.* Individuals vary greatly in the amount of hairy development, and various instances are on exhibition, from time to time, where the normal hair of the head or beard is augmented very greatly, or even where the entire body and limbs present an excessive growth. Medically, hypertrophy of hair is of special interest when it develops in unusual situations, as on the face and arms of females, which it

may do to a varying degree, from a few straggling, stiff hairs on the chin or upper lip, to a completely bearded condition.

Etiology.—No satisfactory cause is established for the excessive growth of hair on the face of women, but frequently it occurs in those of masculine qualities, although in some of the most marked instances of those having a full beard quite the contrary is observed; they have even been mothers of families. In a certain number of those thus affected, uterine or ovarian disease is present, and insanity has also been noticed in this connection.

Treatment.—To be effectual the life of the follicle and the hair papilla must be destroyed; consequently, in the case of hairs of any length, the "depilatories" so largely advertised to permanently remove this condition, are not to be relied on. For the removal of finer hairy growths they may occasionally prove sufficient, but again they may stimulate them to greater hypertrophy. Depilatories are agents which soften and dissolve the hair in the same manner as, but to a greater degree than soap, when used for shaving; they are put on as a paste, and left five to ten minutes on the skin and then scraped off.

For hairs of larger growth and fewer in number, destruction of individual follicles is necessary. This can be accomplished by introducing a straight glover's needle into each follicle, after the extraction of the hair, and rotating it several times, as first pro-

posed by the writer several years ago; the effect is heightened by dipping the needle in carbolic acid before insertion. More recently electricity has been employed with advantage for this purpose; the negative pole is attached to the needle, and the positive is held in the patient's hand, a current from between six and twelve cells being employed; the current is to be completed by the patient touching the electrode in the hand after the needle is *in situ*. The needle is introduced while the hair is yet in its follicle, and the electrolytic action loosens the hair with the formation of a foam around it, when it can be readily extracted. With either of these processes a certain proportion of hairs regrow.

2. **Nævus pilosus.** Synonym: *Hairy mole.* With hypertrophy of hair in small localized patches there is generally a pigment deposit, and some little papillary hypertrophy, whereby the surface is slightly raised. Hairy moles may be of various sizes and shapes, even to covering a portion of the face or body.

Treatment.—Caustic potassa, in very strong solution, carefully applied, will destroy the whole growth and leave a moderate scar; unless too large, excision or thorough removal with a sharp spoon is to be preferred.

E. HYPERTROPHIES OF NAILS.

The nails become affected in many diseases, as

was briefly mentioned in connection with the subject of onychia. As hypertrophy, two forms or conditions are observed, *onychogryphosis* and *onychauxis.*

1. **Onychogryphosis.** This relates to a thickened and more or less curved or twisted nail, as is not infrequently observed upon the toes of elderly persons who have worn ill-fitting shoes. Some cases are on record where such nails had obtained a very great length and size.

2. **Onychauxis.** Under this term are included anomalous conditions of nail, represented by the development of superfluous nails, and also the excessive growth of a normal nail. Instances are recorded of nails measuring several inches in length.

CHAPTER XVIII.

CLASS VII. ATROPHIÆ.—ATROPHIC AFFECTIONS.

THIS class of diseases is characterized by an atrophy of the elements of the skin and its appendages, and is subdivided into four groups relating to: Atrophy, A, of pigment; B, of corium; C, of hair; and D, of nail.

A. ATROPHIES OF PIGMENT.

Three disease states are placed here, namely: *albinismus*, *leucoderma*, and *canities*.

1. **Albinismus.** Synonyms: *Albinism; Leucasmus universalis; Congenital leucopathia.* This has reference to a congenital condition observed in certain individuals who are called Albinos, in whom there is an absence of pigmentary matter not only in the skin, but also in other portions of the body; the skin is of a milky white, the hairs everywhere are of a white or very light color, and the eyes have a peculiar pinkish or bright red color, and are very sensitive to light, owing to the absence of pigment in the choroid.

Etiology.—The cause of the anomaly is entirely

n; it is most common in the negro race, and same family some children may be very black thers perfect albinos. It also occurs partially ie negro as a congenital condition; when developing subsequently its condition belongs to that next described.

2. **Leucoderma.** Synonyms: *Vitiligo; Leukopathia acquisita; Cutis variegata; Acquired leucasmus; Piebald skin.* This consists of an irregular distribution of the pigment matter of the skin, whereby smooth, rounded, white patches of varying size and extent are produced, surrounded by an area in which the pigment is augmented. The surface is devoid of scales and on a level with the surrounding integument, and there is no abnormal sensation experienced in the parts. Their most common location is upon the backs of the hands and fingers, and on the neck, though any region of the body, or a considerable portion of it, may ultimately be affected; these cases are often exhibited in museums as "spotted men."

Diagnosis.—It is to be distinguished from *chloasma*, *tinea versicolor*, and *morphœa.* It has no connection with leprosy, although it has sometimes been described as *white leprosy;* nor has it any relations to syphilis, although the *pigmentary syphiloderm* may resemble it very closely.

Treatment.—The condition is a very rebellious

one; nerve tonics are mostly recommended, and I have seen a very marked benefit from the use of phosphide of zinc and nux vomica (Formula 71) taken internally; as the eruption sometimes varies spontaneously, the real value of this cannot be yet determined. Local applications of bi-chloride of mercury and ammonia (Formula 45) certainly benefit it greatly in many cases.

3. **Canities.** Synonym: *Grayness of the hair.* The causes of the turning gray of the hair are entirely unknown; while it is a common sign of age, the period at which the hair changes varies very greatly in different individuals, and often appears to be a family peculiarity. In many instances prolonged grief and trouble cause it to whiten early, and undoubted cases are on record where sudden fright or sorrow have caused the change to take place within a single day. It is not very uncommon to have tufts of gray hair over the track of nerves which have been the subject of neuralgia; the hair on patches of leucoderma is usually white.

Although all signs point toward a nervous influence in producing the change, but little can be accomplished by treatment in the way of restoring the normal condition.

B. ATROPHIES OF THE CORIUM.

Two affections are recognized here, *atrophia cutis,*

from idiopathic causes, occurring in various forms and conditions; and *atrophia senilis.*

1 **Atrophia cutis.** Atrophy of the skin may occur in three forms: first, as a more or less general condition such as occurs in connection with certain other disease states, and also following injury of nerves, the glossy skin of writers. Atrophy may appear as a *symptomatic* condition in parts which have been greatly distended, as in the *liniæ albicantes,* seen on the abdomen after pregnancy and tumors, also on the breasts, and on anasarcous legs. It also occurs as an *idiopathic* condition without known cause, constituting the *striæ atrophicæ*, and *maculæ atrophicæ;* these appear as separate, white, slightly depressed spots, long or rounded, exhibiting evident atrophy of the deeper structures, and may be found in any situation.

2. **Atrophia senilis.** Senile atrophy of the skin is mainly important as being a factor in the causation of the pruritus which is common in old age. The senile alterations which take place in the integument are characterized by thinning of the whole skin and atrophy of the papillary layer, alteration in the sebaceous glands, and a diminution in the elasticity and extensibility of the skin.

C. ATROPHIES OF HAIR.

Four states are located in this group, ordinary

alopecia, alopecia arcata, the curious alteration known as *trichorexis nodosa*, and *fragilitas crinium*.

1. **Alopecia.** Synonyms: *Alopecia vulgaris; Trichorrhœa; Defluvium capillorum.* Baldness may result from many different causes, and exhibits different characteristics accordingly; it may be spoken of as symptomatic and idiopathic.

SYMPTOMATIC BALDNESS.—The hair may fall as a result of severe sickness, and also after pregnancy, and as a consequence of a number of diseases which affect the scalp; these are *syphilis, erysipelas, eczema, psoriasis, seborrhœa, favus*, and *ringworm*, also any ulcerating disease, as *lupus*. In addition to the loss of hair caused by ulcerating lesions, there are two periods at which syphilitic alopecia is met with; first, during the earlier stages, in conjunction with general eruptions, iritis, etc., and second, during a later period, from the cachexia sometimes observed, accompanied with seborrhœa. The hair lost early in syphilis, and in consequence of erysipelas and acute eczema of the scalp, also from psoriasis, tends to return as these are removed. The most fertile cause of baldness is seborrhœa, and also a low grade of chronic eczema; both manifest abundant scales or dandruff, those of seborrhœa are more greasy, while in eczema there is commonly considerable itching. Long continued favus is very prone to leave permanent baldness by destroying the follicles, causing

scarring; ringworm seldom does more than to temporarily destroy the hair.

IDIOPATHIC BALDNESS.—This results from failure in the hair producing powers of the follicles, and that which is a natural event in advancing age, may occur as disease during early years. Premature loss of hair is common in some families, as also early turning gray, and where this strong hereditary tendency exists it is very difficult to arrest the falling or to restore that which is lost. The history in the family of early falling of the hair, however, need not always indicate an unfavorable prognosis, because each case may have been due to causes which were remediable.

Etiology.—Debility and dyspepsia, either directly or through the agency of squamous eczema or seborrhœa, are the most frequent causes of early loss of hair, together with the absence in the food of the phosphates found in whole wheat. Continuous and severe mental application, likewise severe nervous strain can also cause the hair to fall.

Treatment.—Symptomatic baldness is treated by measures suited to the condition present, and by the subsequent use of stimulating hair lotions (Formulæ 49, 50, 51). Where cicatricial tissue has formed, all efforts are of course useless. It is very important to determine whether slight, chronic eczema is present, or seborrhœa, for unless these conditions are recognized and treated properly but little permanent gain will result.

2. **Alopecia areata.** Synonyms: *Area Celsi; Porrigo decalvans; Tinea decalvans; Pelade.* This is characterized by the appearance upon an otherwise apparently healthy scalp of one or more sharply defined, perfectly bald, smooth, white, and shiny spots, which may remain and increase in size, or slowly regain their normal condition by a growth of fine downy hair. The disease usually appears very suddenly, and often on awaking in the morning the patient or friends will discover a spot, generally roundish, completely devoid of hair, of a size varying from half an inch upward in diameter. The most common seat for the first appearance of the disease is either parietal region, or the top of the head. The beard may also be affected either primarily or later in the disease. The condition may remain stationary for a considerable period, or may advance rapidly or slowly, even until every hair is removed from the entire body. In certain rare cases all the hair of the scalp will be loosened at once and come out with the slightest touch at any point.

Etiology.—The cause of the falling of the hair must be looked upon as neurotic, although opinion is still divided as to its true nature. Many have considered it to be caused by a vegetable parasite, to which the name *microsporon Audouini* has been given; repeated and careful studies by competent observers have failed to find the fungus, and the parasitic theory is abandoned by most recent writers.

After repeated and thorough search I have never been able to find the parasite; the youngest patient I have seen affected is a girl of six, the oldest a man of fifty-four.

Diagnosis.—The only eruption liable to be mistaken for alopecia areata is *tinea tonsurans:* as a rule this presents the symptoms described, but occasionally will exhibit quite bald and smooth patches, much resembling the disease under consideration, and the question arises whether the trichophytic disease may not by nerve irritation induce true alopecia areata.

Treatment.—Internal treatment has very little immediate effect, but should never be neglected; it should always be tonic, with especial reference to the nervous system (Formulæ 55, 60, 64). Phosphates should be supplied in the diet, as in bread from the whole wheat; also fats. The local treatment is embraced in the single word stimulation: small patches may be blistered with advantage; where a large surface is involved stimulating lotions (Formulæ 49, 50, 51), are applicable, increased in strength, with acetum cantharidis until their action is severe. Sulphur ointment, well rubbed in, is also a good application. Injections under the skin of the nitrate of pilocarpin, one-tenth grain every few days, will sometimes act wonderfully well.

Prognosis.—This should always be guarded, as

occasionally the disease will prove most rebellious even for years.

3. **Trichorexis nodosa.** This consists of a peculiar alteration in the shaft of the hairs, whereby nodosities, of a whitish appearance, occur singly or at intervals along the hair; the hair is liable to break at these swellings, and the ends have a brush-like appearance. It is most common on the moustache, and beard, but has also been observed on the scalp. It is not parasitic.

Treatment.— Repeated shaving and inunction with the oleate of mercury, five per cent. solution, affords the best prospects, but often the disease proves very rebellious, the nodules reappearing as soon as the hairs attain sufficient length. Constitutional treatment has little if any effect.

4. **Fragilitas crinium.** Synonym: *Atrophia pilorum propria.* In this the hairs fracture easily, generally breaking only in part, then stripping down the shaft. In other instances they break at their exit from the skin, and the illy-growing hair irritates the follicle.

A number of other curious mis-growths of the hair have been reported, which cannot be noticed here: not very infrequently it will be seen to curl itself up just beneath the epidermis, and sometimes cause considerable irritation.

D. ATROPHY OF THE NAIL.

Atrophy of the nail is generally due to diseases affecting the skin extensively, or the region of the nails alone; it may also appear independently of other disorder than an imperfect formation of nail substance.

Onychatrophia. Synonyms: *Degeneratio unguium; Mollities unguium.* In psoriasis the nails are apt to be covered with little pits or apparent erosions; in eczema they may be mal-formed, and either thin or thickened. In phthisis the nails are thin and apt to be curved. As an idiopathic condition we occasionally find the nails thin, fragile, and easily split when buttoning the clothes; in other cases the nail is furrowed lengthwise. After severe sickness an atrophic furrow appears as the nail is growing out, corresponding to the date and duration of the illness.

CHAPTER XIX.

CLASS VIII. NEOPLASMATA.—NEW FORMATIONS.

TWO subdivisions occur in this class, relating to, I. Benign new formations, and, II. Malignant new formations; these differ more in their clinical features and tendencies than in any pathological characters. They are all characterized by a deposit of elements which may correspond with the normal tissues of the skin, as connective tissue, blood vessels, lymphatic tissue, etc., or of cellular elements which destroy the life of the part and produce scars.

I. Benign New Formations.

THE diseases in this division give trouble by their presence and unsightly character rather than by any tendency to cause great pain or to destroy life; eleven diseases are thus classed in six subgroups: New formations, A, of connective tissue; B, of fatty tissue; C, of granulation tissue; D, of blood vessels; E, of lymphatics; F, of nerves.

A. NEW FORMATIONS OF CONNECTIVE TISSUE.

Three diseases are grouped here, *keloid*, *fibroma*, and *xanthoma*.

1. **Keloid.** Synonyms: *Kelis; Cheloid; Cheloidea.* This is a flat or rounded new growth of connective tissue, smooth and firm, generally of a reddish color, and of various shapes, usually presenting claw-like projections, and bearing much resemblance to the cicatrix from a burn. Writers have often spoken of a *spontaneous* or *true*, and of a *cicatrical* or *false* keloid; it is questionable if in every instance the disease does not arise from traumatism, although individuals vary greatly in their tendency to the production of this new growth. It is observed to follow all sorts of injuries, also severely ulcerative affections, syphilitic and other, although generally the traumatic cause is unrecognized; the front of the chest is a favorite location. It is more common, and apt to be larger in negroes than in the white races. The cause is unknown.

Diagnosis.—This is usually simple, owing to the peculiar features belonging to the disease; it is distinguished from ordinary *scars* by its tendency to spread slowly, and by pricking pains which generally occur.

Treatment.—No treatment is of much, if any, avail; destruction or removal in any way is generally followed by reproduction of the disease.

2. **Fibroma.** Synonyms: *Molluscum fibrosum; Molluscum simplex; Molluscum pendulum.* This consists of soft, roundish tumors, of various sizes, either

pedunculated or imbedded in the skin, and of the color of the normal integument, unless when irritated or inflamed. There may be a single one, or multitudes; over three thousand have been observed on a single person. In some instances they have long pedicles and occasionally may attain great size; they consist of connective tissue with more or less serous and mucoid elements.

Diagnosis.—The tumors differ from *acne molluscum* in being solid, and having no central opening; fatty tumors or *lipomata* are apt to be lobulated and more flat; *sarcomata* are more round and solid.

Treatment.—Removal by excision or ligature.

3. **Xanthoma.** Synonyms: *Xanthelasma: Vitiligoidea: Fibroma lipomatodes.* This is characterised by the presence of one or several spots or patches of yellow or buff-colored tissue, either on a level with the skin or slightly raised, smooth and velvety on the surface. It is most commonly seen upon the eyelids, in patches of varying size and shape, but may also affect many portions of the body; it is much more frequent in females than males, and is rare in children.

Two forms of the eruption are spoken of, *xanthoma planum*, and *xanthoma tuberosum;* in the former, the new deposit is evenly disposed, and in the latter, gathered more into small nodules or points; in a very striking case still under my care the

nodules exist in considerable numbers on the elbows, and moderately below one knee, while on all the lines of flexure of the hands the yellowish deposit is in streaks quite on a level with the skin.

Etiology.—Liver disorder is thought to be a cause, as jaundice has been observed to precede the eruption in a certain number of cases; the connection and true causation is still doubtful.

Diagnosis.—The lesion can hardly be mistaken, there is no other which resembles it.

Treatment.—Excision, where practicable, offers about the only means of cure; where the disease is recent and progressing with evident liver disorder, as in the case of *xanthoma multiplex*, the latter should receive careful and thorough attention.

B. NEW FORMATION OF FATTY TISSUE.

Lipoma.—Fatty tumors belong rather to the subcutaneous tissue than to the skin proper, but they are introduced here because of their frequent importance diagnostically. They are characterized by their indefinite outlines, their soft and flabby feel, and their mobility with the skin, which is normal over them; they may be of any size, and are seldom abruptly elevated.

Diagnosis.—Lipomata may be mistaken for *carcinoma*, *lymphangioma*, *sarcoma*, and a *syphilitic gumma*.

C. NEW FORMATIONS OF GRANULATION TISSUE.

This group embraces three diseases, *lupus*, *scrofuloderma*, and *rhinoscleroma;* these approach closely to the second division, namely, malignant new formations, in their pathological features, as well as in their occasional destructive tendency.

1. **Lupus.** The two conditions, *lupus erythematosus* and *lupus vulgaris*, which are classed under this name, differ from each other in so many respects that it is desirable to treat of them quite separately.

LUPUS ERYTHEMATOSUS.—Synonyms: *Lupus erythematodes; Lupus sebaceus; Seborrhœa congestiva; Scrofulide erythemateuse.* This is characterized by the presence upon the skin of one or more patches of infiltrated tissue, presenting congestive redness, and of a smoked-ham color, tending to become covered with grayish brown, adherent scales; upon the forcible removal of the scales from patches occurring upon the face, they are found to have prolongations from their under surfaces, which extend into the ducts of the sebaceous glands, which are thus left gaping, giving much the appearance as though a needle had been thrust into reddened wax.

The beginning of the disease is often so slight that a correct diagnosis cannot be made; there is only a rather dusky, generally circular, erythematous point or patch, which persists in spite of medi-

cation, gradually thickens, and becomes scaly, accompanied with occasional pricking sensations; it is always dry from beginning to end. The most common location is the face, and especially the nose and cheeks, although the disease may attack any portion of the body; the eruption may involve a considerable region by extension, or by the appearance of new spots; in certain rare cases the disease may develop rapidly over a considerable extent, and even be accompanied with constitutional and febrile conditions.

Pathology.—While in the fully developed disease there is found cell infiltration which leads to destruction of tissue and scarring, the earliest phases exhibit mainly the phenomena of inflammation; it was once thought that the disease originated in the sebaceous glands, hence the name first proposed by Hebra, *seborrhœa congestiva*, but recent investigations have shown that it may begin in other structures as well.

Diagnosis.—The eruption is liable at times to be mistaken for *lupus vulgaris*, *seborrhœa*, *chronic eczema*, *psoriasis*, *erythema multiforme* (*circinatum*), *ringworm*, *syphilis*, and non-eroding *epithelioma*. In rare cases erythematous lupus develops into lupus vulgaris, but commonly is distinguished from it by the absence of the pulpy tubercles belonging to the latter.

Treatment.—Lupus erythematosus is always a rebellious disease, and is very little affected by inter-

nal medication; phosphorus will sometimes act very favorably, iodide of starch (Formula 75) has also been recommended. Local treatment is of most service, but also often proves insufficient to remove the disease, and cannot prevent the development of new patches. The treatment is stimulating, soothing measures having but little effect. Soapy solutions or those of caustic potash (Formulæ 16, 38, 39) well rubbed in are most highly recommended; they often cause considerable inflammation, but are followed by absorption. The emplastrum mercuriale (Formulæ 18, 19) is also of value. Erasion, or scraping with the sharp spoon, is an effective plan of treatment, as also multiple scarification, repeatedly employed; the actual cautery produced by Paquelin's apparatus, or by galvanic action, is also of service.

LUPUS VULGARIS.—Synonyms: *Lupus exedens; Lupus tuberculosus; Lupus hypertrophicus; Noli me tangere; Scrofulide tuberculeuse.* True lupus is rare in this country, but twenty-five cases occurring in the 8,000 analysed, or about three per thousand; tubercular syphilis which may simulate lupus, and to which the term *syphilitic lupus* is sometimes given, is excluded; true lupus has no connection with syphilis.

Lupus vulgaris consists of a new deposit of cellular elements, forming reddish or brownish masses, which are soft and pulpy, more or less translucent, and are followed by cicatrices. The cellular deposit

may be in distinct papules or tubercles, or, as is frequently the case, may infiltrate larger portions; in older cases an evenly affected surface is often seen, interspersed with cicatricial bands, and covered with epidermal scales of some size, firmly attached on one edge, or more rarely with crusts over some portions. Many of the cases presenting great ulceration and destruction of tissue, formerly called lupus exedens, and *noli me tangere*, touch me not, are now recognized to be epithelioma or rodent ulcer, and syphilis. True lupus is very rebellious and may cause disfigurement and distress, but very rarely makes the inroads described in older books as belonging to the disease, whence the Latin name lupus, a wolf, was derived. It is most commonly seen upon the face and extremities; it generally commences in young life, before twenty, and rarely, if ever, begins after fifty years of age.

Diagnosis.—Lupus vulgaris is most frequently confounded with tubercular and gummy *syphilis*, also with *lupus erythematosus* and *epithelioma;* it should never be mistaken for other eruptions. The history and the rapid development of the lesions of syphilis, together with their characteristic grouping, their tendency to heal and reappear, and the crusts generally seen, should suffice to distinguish the syphilitic eruption.

Treatment.—This is frequently very unsatisfactory; internal measures have comparatively little

effect, but every element should be attended to looking toward improved health and nutrition. Cod-liver oil is often of some service, also phosphorus and iodide of potassium. Local measures, to be effectual, must be energetic; the disease itself produces scarring, and the object of treatment is to destroy diseased tissue and to substitute healthy inflammatory action for disease. Nitrate of silver in stick, thoroughly bored into the nodules until healthy tissue is reached, is one of the best measures; the surface is to be covered with picked lint, which dries into a crust and falls off in some days; any remaining disease should be immediately attacked anew. Caustics in paste or ointment, as arsenic and red iodide of mercury (Formulæ 12, 15) answer if efficiently applied, but are slow and painful; also acetate of zinc in crystal, and chloride of zinc. The actual cautery, erasion with the sharp spoon or curette, and multiple scarification are also of great service in the treatment of lupus.

3. **Scrofuloderma.** While lupus is often seen in strumous patients, and by many is regarded as a scrofulous affection, this is not always the case; the present term is employed to represent other changes in the skin and subcutaneous tissues than lupus, which are observed in those exhibiting more clearly the marks belonging to that illy defined but still practically acknowledged condition or state called scrofula or struma.

The most common form of disease is that observed to take its origin from lymphatic glands, as when they become enlarged and suppurate beneath the jaw, or in the region of the clavicle; here the resulting cutaneous ulceration is of a purplish red color, with undermined edges and indolent, granulating base, bleeding easily, with a sero-purulent discharge, often coming from a sinus communicating with the ulcer. A rare form of scrofulous disease is seen in the form of rather hard, dark red elevations, sometimes verrucous in character, tending to ulcerate and to become covered with crusts; at times they are fungoid and give exit to sero-purulent discharge.

Diagnosis.—The exact conditions of disease of the skin which are to be grouped under the name scrofuloderma are by no means well defined as yet, and differentiation is to be made rather by exclusion than by peculiar features which are entirely characteristic. These lesions mostly resemble *syphilis*, *lupus*, and *epithelioma*.

Treatment.—The most careful and complete treatment for the scrofulosis is that most appropriate for the diseased skin, with such remedies as cod-liver oil, iron, lime, etc. Locally the preparations of iodine, as the compound iodine ointment, aid absorption; mercurial ointments (Formulæ 92, 93, 102, 103) are also of service. The process tends to produce scarring, and if left to itself is very tedious; the earlier that radical measures are undertaken the

better; erasion with the curette is often the best method of treating the strumous deposit.

3. **Rhinoscleroma.** This curious affection, which is almost unknown in this country, was first described by Hebra and Kaposi in 1870. It consists of a very hard, dense formation about the nose and its immediate neighborhood; the surface is either of normal color, or of a light or dark, brownish-red shade, and may be either flat or raised into prominences; it has little or no tendency to ulcerate, and heals kindly, but is reproduced, after destruction or excision. The mass gives little trouble except by its increased growth, but is somewhat painful when pinched. It has no connection with *syphilis*, and is quite distinct from *epithelioma* and *lupus*.

Treatment.—This is extremely unsatisfactory; Kaposi states that no successful method of treatment has been found. He had observed twenty-five cases.

D. NEW FORMATIONS OF BLOOD VESSELS.

Two diseases are placed in this group, *nævus vasculosus* and *telangiectasis*.

1. **Nævus vasculosus.** Synonyms: *Nævus sanguineus; Claret stain; Port-wine mark; Mother's mark.* This consists of a new growth of blood-vessels, congenital or appearing shortly after birth, pre-

senting various appearances. It may be a mass of larger vessels, and form a tumor of a round or oval shape and of varying size and height; or it may be composed only of smaller capillaries and be level with the surface. The latter constitutes what is ordinarily known as *port-wine mark* or *claret stain*, called also *mother's mark* and *birth mark*, and may vary from a trifling disfigurement to a hideous deformity, covering much of the face or even of the body. The color varies from an arterial red to a bluish purple. In larger nævi pulsation is often very distinct.

Treatment.—Larger cavernous nævi requires surgical operation, or they may be treated by electrolysis, with the introduction of needles connected with the negative pole into them, the positive pole being placed above. Superficial nævi may be destroyed with caustics or with the actual or galvanic cautery. Multiple scarification, electrolysis, and multiple puncture, with the introduction of carbolic or chromic acid, have also been used with success.

2. **Telangiectasis.** In distinction from congenital vascular new growths or nævi, this term is applied to those which appear later, generally in early adult life. Various forms and degrees are observed; the slightest is that appearing generally about the face as a minute red dot from which several small vascular lines radiate, the *nævus araneus*, or *spider*

nævus. After lesions which produce cicatrices there is frequently a telangiectasic condition of the capillaries, which are tortuous and dilated. This state is often seen upon the nose and cheeks in connection with acne rosacea, and to this the term *rosacea* alone has been applied. Varicose veins also belong in this class.

Treatment.— Naevus araneus may be easily removed by boring into the central vascular point with a caustic: a convenient method is to use a sharpened match dipped in mono-chloro-acetic acid. The enlarged veins on the face may be obliterated by slitting them with a knife, and cauterizing their course with a stick of nitrate of silver; electrolysis is also valuable.

E. NEW FORMATIONS OF LYMPHATICS.

Lymphangioma. Synonym: *Lymphangioma tuberosum multiplex.* This very rare affection consists of the production of many, small, rounded or oval, brownish-red nodules, slightly painful on pressure, and firmly embedded in the corium. These are found microscopically to present circular or oval spaces, identical in structure with dilated lymphatics.

The cases described by French writers as "*lymphadénie cutanée*" are now thought to be forms of sarcoma.

F. NEW FORMATIONS OF NERVES.

Neuroma cutis. This term has been applied to a very rare affection characterized by small, firm, flattened tubercles, packed together or irregularly disseminated, which may be of the color of the skin, or a little reddened, and presenting a roughened surface. Beginning with itching, the later development is attended with pain, which is paroxysmal and very severe, radiating from the part; movement or pressure, also exposure to cold air and change of season, excite the attacks of pain. In other instances a single "*subcutaneous painful tubercle*" appears.

Treatment.—Excision of the nerves leading to the part has given much relief; all other measures are only palliative.

II. Malignant New Formations.

Four diseases are grouped here, each presenting several clinical phases, all marked by their malignant character, tending in the end to destroy life; these are, *lepra*, *carcinoma*, *epithelioma*, and *sarcoma*.

1. **Lepra.** Synonyms: *Leprosy; Elephantiasis Græcorum; Leontiasis.* Leprosy is a constitutional, malignant disease, characterized by the occurrence of cellular deposits in the skin and other tissues, producing changes which tend to destruction and death. Leprosy is endemic in certain countries,

especially in Asia and the islands of the sea, also in some sections of Europe, as Norway, and also in portions of South America; it is very rarely seen in this country, and generally in persons who have frequented affected countries, although well marked fatal cases have occurred in the United States without any connection with other regions. The disease is frequently known as *elephantiasis Græcorum*, but it should be clearly distinguished from the *elephantiasis Arabum*, previously described, with which it has no connection whatever.

Three forms or varieties of leprosy are spoken of, *lepra maculosa*, *lepra tuberculosa*, and *lepra anæsthetica*, but the disease is identical in every instance, and all forms may appear in the same individual; the tubercular form often commences with macules, and all cases exhibit more or less anæsthesia.

LEPRA MACULOSA makes its first appearance in the form of macules, or with occasional bullæ; the macules are at first red, slightly elevated, and with illy-defined margins; later they become brownish-red, and as they enlarge tend to clear in the centre; still later they may present an atrophied condition, and the eruption then exhibits pale patches, an inch or so in diameter, round or oval, with a slightly elevated, dark, brownish-red, or ham-colored margin of considerable breath, shading insensibly into the normal skin. During their entire course the macules have an infiltrated appearance; there is apt to

be hyperæsthesia first, and anæsthesia later; the first sensation may be as though a hair lay on the surface, tickling it. Still later, marked anæsthetic symptoms and tuberculous deposits appear, as next described.

LEPRA TUBERCULOSA.—Tubercular leprosy is the form most commonly encountered; here irregular masses form within the tissues, which may be from the size of a pea to that of a large nut or larger, of a yellow, and later of a brown color. These are apt to develop first in the lobes of the ear and the nose, next on the forehead and lips; the term *leontiasis* has been applied to the appearance thus presented, from a supposed likeness to a lion's face. In later stages the tissues of other parts become the seat of similar deposits, which may also affect the mucous membranes, and the eye.

LEPRA ANÆSTHETICA.—This form is seen most commonly in countries where the disease is endemic; the nervous tissue appears to be first affected, and tickling and burning sensations are felt, with pain; thickening of the nerves also occurs, which can be especially felt along the ulnar nerve. Macular patches and perhaps bullæ appear, and shortly the tissues of the fingers and toes become thickened and the parts feel numb; ulceration now readily occurs and the phalanges separate and are lost one by one, without pain, the stumps healing perfectly (*lepra mutilans*). The process may go on

to the removal of all the fingers and toes, and even of the feet and hands; or the parts may become shrunken and distorted.

Diagnosis.—Leprosy may most frequently be mistaken for *syphilis*, also for *lupus;* the occasional bullæ might suggest *pemphigus*, and the whitened patches with dark borders resemble *leucoderma* or *morphœa;* a distorted hand might resemble *scleroderma*. When fully developed it can hardly be mistaken.

Pathology.—The lesions consist of new deposits of cellular elements resembling those in lupus and syphilis; the nerves are found to be swollen and darkened, mainly by new deposit in their sheaths, the pressure of which accounts for the nerve symptoms.

Prognosis.—This is always bad; treatment has effected but little in staying the progress of the disease, even in other lands than where it is endemic; it may last three, five, ten, or even more years before the patient succumbs. While in foreign countries it is found mainly among the lowest classes, the cases met with in this country are often in good circumstances; but the best of care accomplishes but little. While leprosy may not be communicated by ordinary contagion, the experience in other lands shows that it is desirable to segregate lepers; there is no doubt in regard to its transmission by heredity. Reported cases and statistics show that the disease is certainly on the increase in the United States.

Treatment.—In addition to the best dietetic and

hygienic management, and the treatment of symptoms as they arise, powerful tonics, especially quinine, have some control over the disease. Special drugs have also been found of service by different observers, but have as often failed; these are chaulmoogra oil, internally and externally, gurgun balsam, the oil of the cashew nut, and hoàng nàn.

2. **Carcinoma cutis.** Cancer of the skin commonly arises as a secondary deposit in connection with cancer of other organs, chiefly of the breast. It is characterized by the appearance in the skin, especially on the chest, of small, very hard masses, of a pinkish or brownish red, with some hardening of the tissues between; the little kernels are painful when pressed on.

Another form is presented as a diffuse induration of the integument, more commonly first seen on the chest, exhibiting when fully developed a hardened and somewhat contracted, and shiny skin, with or without separate nodules, the so-called *cancer en cuirasse*. This may extend and so press upon the blood vessels as to cause œdema of the arms and much pain.

Carcinoma melanodes, or melanotic cancer, is a malignant form of disease often starting from a pigmentary mole, which forms fungating, bleeding masses; other organs, often almost the entire system, may be later infiltrated with the disease.

Diagnosis.—The diffuse forms of cancer are liable to be mistaken for *scleroderma.*

Treatment.—This is at the best but palliative.

3. **Epithelioma.** Synonyms; *Epithelial cancer; Cancroïde; Rodent ulcer.* The forms and appearances of epithelioma in different degrees and stages vary so greatly that those unacquainted with the disease may fail to appreciate the lesion; cases also differ very greatly in their malignity. The beginning is always very small, and commonly its real nature is not recognized until it has lasted some time; the disease may start from a mole or wart, or from a hardened sebaceous concretion, or begins unrecognized as a scaly patch, which exhibits a raw and frequently slightly bleeding surface, whenever the crust is picked or rubbed off. Soon greater infiltration is manifested and more ulceration; in the progress of the disease small pearly tubercles, hard and cartilaginous are often formed, which break down on their summits and form ulcers. The edge of an epithelioma generally becomes hard and elevated, the ulcer extends and deepens, and great destruction of tissues, even of the bones may result (*rodent ulcer*). Upon the lip the disease, beginning in a very insignificant raw spot, may increase to such an extent as to present a fungous mass of granulations; in occasional instances large areas of skin may be occupied by the disease.

The face is the most common seat of epithelioma, but no portion of the body is exempt; the lower lip is most frequently attacked, also the region of the eyes and the nose. The male and female genitals are also common locations, and the tongue and mucous membrane of the mouth are not rarely affected; the process may attack old ulcers of the leg.

Pathology.—The disease is to be looked upon as a perverted growth of epithelial elements of the skin; the "*epithelial nests*" are compacted masses of cells, arranged like the layers of an onion.

Diagnosis.—In its beginning, when there is only a slight scaly patch, with a little viscid secretion or slight bleeding beneath, epithelioma may be confounded with *eczema* and *horny seborrhœa*. Later, it may be mistaken for *lupus*, the lesions of *syphilis*, and *venereal warts;* many cases, formerly called lupus, under the title *noli me tangere*, are now recognized to be epithelioma. Upon the lip and mucous membranes the disease may resemble a *chancre*, or a *mucous patch.*

Prognosis.—This must vary greatly with the case; if taken early and treated radically, the disease may generally be cured; old, extensive, and neglected or badly treated cases are always very unfavorable. In some instances it runs a rapid and very destructive course; the glands are seldom affected as in cancer, even in severe cases.

Treatment.—This must be as early and radical as possible, and consists of complete and thorough removal of the diseased tissue by surgical operation, or deep and perfect destruction by means of caustics; scraping with the curette has been advised, but often fails to reach deeply enough to remove all the disease. Various caustics may be used, chloride of zinc, caustic potassa, or Vienna paste (Formulæ 13, 14, 16), or other which destroys deeply; the one I prefer is the arsenical paste as used by Marsden (Formula 10) in the London Cancer Hospital. This consists of equal parts of powdered arsenious acid and gum acacia, which are mixed into a thick paste at the time of using, with a few drops of water. It is to be laid upon the part, freed from crusts, and allowed to dry on, covered with a little cotton batting; after from six to twelve hours the part is poulticed with flaxseed meal, with renewals every two hours until the slough separates and the wound is healed, the bit of cotton, saturated with the caustic, being left adherent as long as possible. A second application may be required, although seldom, except in large or deep seated lesions; not more than one square inch of surface can be safely attacked at once with the paste.

4. **Sarcoma cutis.** Sarcoma of the skin is a very rare affection, but three cases occurring in the eight thousand analyzed, all in males. It consists of few,

or many, well defined, elastic tubercles or tumors, forming deep, rounded masses, with a tendency to reach the surface and ulcerate. The skin over them is, at first, of the normal color, and somewhat movable, but as they approach the surface it becomes adherent and reddened; or, if the sarcoma is of a pigmented variety it acquires a bluish black hue (sarcoma pigmentosum, or melanosis). The so-called *lymphadenoma*, "*lymphadénie cutanée*" and "*mycosis fungoide*" of the French, appears to be a form of sarcoma, as, also, the disease described by Geber and by Duhring under the name "*inflammatory fungoid neoplasm*"; the tumors in these latter cases developed with great rapidity.

Diagnosis.—Sarcomatous tumors may be confounded with *tubercular* and *gummy syphilitic deposits*, *cancer*, *lupus*, *leprosy*, and *fatty tumors.*

Prognosis.—This is always most unfavorable; death usually results within two or three years.

Treatment.—Nothing can be done to check the development of the tumors; surgical interference may be of service in particular situations.

CHAPTER XX.

DIET AND HYGIENE OF DISEASES OF THE SKIN.

THE subject of the effect of diet upon the skin in health and disease, is one which has been greatly neglected in the study of Dermatology, and yet is one which is of the utmost practical importance, and which should receive the careful thought and observation of every physician. Hygiene is also of very great consequence, both as regards the individual and others. First, of diet.

All are more or less familiar with the acute erythema, or urticaria, occasionally resulting from the ingestion of certain varieties of fish, particularly shell-fish, also, at times, from mushrooms, bananas, strawberries, raspberries, etc.; in some the eruption will appear whenever these are eaten, in others, only when the articles are stale, or when they themselves are in a peculiarly susceptible condition. Gross indiscretions in eating, as of mince pies, fruit-cake, rich cheese, etc., often cause acne; and many drugs taken internally, such as iodine and bromine compounds, copaiba, quinine, and others, frequently produce cutaneous lesions.

In like manner, chronic errors in diet can induce

alterations in the skin nutrition, although the extent to which this happens, and the manner in which it occurs are by no means clearly defined as yet. As a most striking illustration may be mentioned the effect of a deficiency in fresh vegetables in producing scorbutus; alcohol and tobacco also undoubtedly exercise a strong influence upon the skin.

The commonly accepted signification of dieting is that of a famishing process, which is to be continued for a longer or shorter period of time, with a view, as it were, of starving out a disease. In the present connection it has a much broader meaning, and signifies *such a regulation of the quantity and quality of food and drink taken, its mode of preparation and time and method of its consumption as shall conduce to the restoration and maintenance of health.* Diet is undoubtedly of varying importance in different affections, and in different individuals, but to a certain degree it is of importance in relation to every case. Defective assimilation and disintegration are important factors in disease, and these defects are to be remedied, not by medicine alone but by the regulation of every element entering into nutrition.

Undoubtedly a healthy appetite and sound judgment are good guides in the matter of diet; but unfortunately every one does not possess one or both of these, and the surroundings of modern society often act very prejudicially. Not every one discriminates between taste and appetite; the *taste* is

gratified long after the *appetite* is satisfied, and sweets and indigestible articles are often partaken of in excess.

Eczema has often been called the "keystone of dermatology," and a brief consideration of dietary matters as related to this disease will throw light on those of other inflammatory affections of the skin, as it will be impossible, in the present compass, to consider the diet of every disease separately; we will first notice errors in diet constantly observed in those suffering from the disease in infant life.

In infants at the breast too frequent feeding is a common cause of the aggravation of eczema if not of its production; the breast is given every time the child cries, or is restless with itching, and this excites or aggravates the digestive disorder. The time of feeding should be regulated, and the breast not given oftener than every two hours, at the least.

But, again, while the times of feeding may be correct, the nourishment may be erroneous from the quality of the milk furnished, which again depends upon diet. Those nursing eczematous children are often found to be taking ale, beer, porter, wine, or tea freely, to increase the breast milk; these should be prohibited and milk or gruel substituted.

Dyspepsia, constipation, or debility in the mother are elements to be considered and rectified when nursing children with eczema are being treated; and

alkalies and tonics to the mother are often of greatest service to the child.

Many infants with eczema are fed erroneously, either conjointly with nursing or in place of it. Milk is the best food, and yet the majority of infants take starchy and saccharine substances, often in great excess; frequently animal matter, in the form of eggs, beef extract, etc., is given far too freely, while occasionally it will be found that even very young infants are fed from the table with the food of adults, tea, coffee, cheese, pies, etc. Space forbids more than brief allusion to this vast and very important subject, but sufficient emphasis can hardly be laid on the advantage of attending to the matter of diet most stringently, as a necessary item in successful treatment. The diet must also be carefully watched in older children. Indeed, eczema at any period of life requires care in this regard.

Eczema patients are generally found to dislike fatty matter, whereas its use should be encouraged, while other hydrocarbons, sugar and starch, are to be diminished in the dietary. The fatty matter taken, however, should not be in combination with other substances, as in gravies, pastry, and fried articles, but in the form of fat of beef and mutton, also butter, cream, and cod liver or other oils. Where the latter are not well tolerated by the stomach, they may be freely employed externally.

In regard to the diet of adults with eczema, dur-

ing acute attacks it should be light and unstimulating, with but little meat; while in chronic cases it should be the most nutritious possible, and yet simple, all elements calculated to produce indigestion or mal-assimilation being sedulously avoided.

In regard to the many substances which may enter the dietary it is difficult to make exact statements; the matter must be guided on general principles, but some of the more common articles may be commented on.

Alcohol acts very prejudicially in very many skin diseases, and should, as a rule, be avoided, unless in the greatest moderation, and with the meals. Fermented liquors are even more injurious, and frequently it is impossible to cure the eruption while they are indulged in; the relative harmfulness of some of the more common ones is about as follows: ale, porter, champagne, lager beer, cider, port wine, madeira wine, sherry, claret, white wine. Tobacco is certainly hurtful in acne, and in eczema of the face and anus, and is probably noxious in many other affections.

Tea and coffee are seldom injurious if taken in great moderation; but tea is often used excessively, and certainly does much harm in eczema, if not in other eruptions.

Milk is often taken as a beverage with meals; as a rule, this is not well for adults, but if taken entirely alone, and on a perfectly empty stomach, it

forms a most valuable means of improving nutrition, and rarely disagrees. The preparations of malt are well administered in milk.

Water may be quite as harmful as other drinks, if taken in excess and too cold; many cases of acne are greatly aggravated by the inordinate use of iced water with the meals, or at other times. Much benefit can constantly be had by giving a cup of hot water half an hour before eating; the thirst is thus quenched, and water with the meals can easily be avoided.

Soup will frequently be found to cause the face of acne patients to flush, and to excite heat and itching in eczema; rich, greasy soup is more apt to have this effect, but with some patients all varieties will produce the same results.

Fish is commonly supposed to be injurious and to be interdicted in skin affections, because urticaria is sometimes caused by shell-fish. On the contrary, fish may very often be used with advantage in place of meat in many skin diseases, especially those exhibiting nervous phenomena.

Salted meats and salted fish are rightly thought to act prejudicially in skin diseases; they should be avoided, as also pickles, olives, rich salads, stimulating sauces, pepper, etc. Hot breads are also injurious, likewise gravies, the skin and filling of poultry, and richly made dishes.

Acids are generally not harmful, although when

they come from unripe fruit they prove injurious; vinegar and lemons are rather beneficial in most skin affections.

The use of certain articles of food requires to be encouraged in certain diseases, of which mention has been made of fresh vegetable products in scorbutus, fatty matter in eczema and strumous eruptions, and also the whole wheat products in many affections. Oatmeal, on the other hand, appears often to be "heating," and patients with skin diseases often do better without it. Mention was also made of the avoidance of excess of sweets and starches in eczema; these are to be guarded against sedulously by acne patients, and also by all those exhibiting gouty tendencies. Sweet potatoes, cabbage, bananas, and apples often do harm to those with inflammatory skin diseases.

Space forbids the developing of other practical matters in reference to diet, such as the *quantity*, *preparation* of food, and the *time* and *mode* of consumption, but they must be looked after or errors will occur. Very many eat excessively, others very rapidly without sufficient mastication, others very irregularly.

HYGIENE.

This relates to the individual and to others; first, as to personal hygiene. Exercise, rest, sleep, bathing, occupation, and recreation are all items which

are often of importance in dealing with obstinate skin affections. Sedentary habits, if not a direct cause of, are often an obstacle to the cure of many eruptions; good brisk walking, several miles daily, suffices, and is within the reach of nearly every one; while horseback riding, rowing, boxing, and fencing, are all excellent adjuvants.

Proper care of the skin is also necessary, but overstimulation by the frequent use of the Turkish bath frequently proves harmful. Occupation may be injurious in many ways; by the sedentary habits involved, by bad air breathed, by poisonous or irritating agents employed, by irregular hours entailed, and by circulatory derangements caused, as when long standing produces varicose eczema, or stooping develops an acne rosacea. All these and other elements are to be considered in connection with particular cases.

In regard to hygiene as related to others, this pertains to the contagious diseases. The hygiene of syphilis is all important; the patient should be continually warned against the danger of communicating the disease to others, as in connection, and by mucous patches. Scabies, ringworm, and favus cases should always be guarded against transferring the eruption to others; and in schools and public institutions the most stringent precautions are often necessary to check the spread of the disease. The protective measures relating to acute infectious diseases are familiar to all.

CHAPTER XXI.

THERAPEUTICS OF DISEASES OF THE SKIN.

THE only basis of rational and successful therapeutics is a thorough knowledge of disease and of the action of remedies, separate and combined, and accuracy of diagnosis is indispensable for the successful management of skin affections. The prescriptions presented in this chapter are, therefore, given with a view of suggesting lines of thought in regard to the employment of remedies, rather than as fixed formulæ to be employed in every instance; individual cases vary so greatly that no absolutely definite prescriptions can be given which are suited for all, and the combinations here recorded must be used with discretion and knowledge, and not simply because the disease for which they are recommended is present. In some instances varying strength is indicated: in the main they are all intended for adults.

BALNEA.

Baths are employed for the purpose of, 1. Allaying local irritation and inflammation; 2. Softening the skin and removing diseased products; 3. Stimu-

℞ Ferri sulphat - ℥j 320
Magnes sulphat - ℥vj 30
Acidi sulph. dil ℥iv
Syr Zingib ℥iv
Aquae ad ℥viij 30

A teaspoonful in water thrice a day, after eating

.	62	20
.	31	10
.	15	
.	480	

℞ Pil Ergotin ℥j. V.
No XX

.	11	66
..	3	75
..	480	

Two before eating & at bedtime

April 17. 1897 [illegible]

88—	7	77
10—	62	20

Use: Stimulating and absorbent.

lating the skin and promoting absorption; 4. As a means of acting on the general economy in quickening the processes of assimilation. Vapor, Turkish, sulphur, and mercurial baths should not be used in inflammatory states; in the main more harm than good is done by them; in sluggish conditions they may be of service in quickening the circulation. It is needless to say that it is useless to attempt to sweat out "impurities in the blood" by this means.

Medicated liquid baths should vary in temperature somewhat with the patient, the season, and the effect desired; a *tepid bath* ranges from 85° to 92° Fahr.; a *warm bath*, from 92° to 98° Fahr.; and a *hot bath* from 98° to 112° Fahr.; to be of much service the patient should remain in the water from fifteen to twenty-five minutes or longer, children a less time, hot water being added if necessary, to prevent chilling. The following formulæ are calculated for a bath of thirty gallons:

1. *Balneum potassii et sodii.*

℞ Potassii carbonatis, ℥ iv..... 124|41
Sodii carbonatis, ℥ iij..... 93|30
Pulveris boracis, ℥ ij..... 62|20

M. Use in a thirty (30) gallon bath, with half a pound of starch. Gelatin, one pound, may be substituted for the starch, or bran, a pound or two being soaked in a muslin bag.

Use: Soothing and cleansing, in sub acute eczema, and psoriasis.

2. *Balneum potassii et glycerinæ.*

℞ Potassii acetatis, ℥ vj—℥ xij..... 186|61—373|22
Glycerinæ, ℥ viij..... 320|

M. For a 30 gallon bath.

Use: Soothing and antipruritic.

℞ Ferri Sulphat- ℥ʃ ... 320
Magnes Sulphat- ℥vj — 30
Acidi Sulph. dil ℥iv
Aquæ ℥iij
Teaspoonful in water three times daily ... 62 20 ... 31 10 ... 15 ... 480

℞ Pil Ergotin gr. v. ... 11 66
mv xx ... 3 75
Mo before eating a fat bacon ... 480

April 17. 1847 ... 3 88— 7 77 ... 1 10—62 20

Use: Stimulating and absorbent.

9. *Balneum brominii.*

℞	Brominii, ♏xx	1	12
	Potassii iodidi, ʒ ij	62	20
	Aquæ, Oj	480	

M. For a 30 gallon bath.

USE: Stimulating and absorbent.

CAUSTICA.

Various caustics are of service in certain diseases of the skin, but in the main they are comparatively seldom required: in employing a caustic to destroy a new growth, care should be taken that it is used sufficiently strong to accomplish the desired result, otherwise further development is stimulated. Nitrate of silver, the mineral acids, and mono-chloro-acetic acid are all of lighter destructive power; the following may destroy deeply.

10. *Causticum acidi arseniosi.* (Marsden's paste.)

℞	Pulveris acidi arseniosi,		
	Pulveris gummi acaciæ, aa ʒ j	3	88

M. Mix a little with water at the time of using, and apply as a thick paste to a surface of not over one square inch at once.

USE: Of especial value in epithelioma.

11. *Causticum acidi arseniosi comp.* (Cosme's paste.)

℞	Pulveris acidi arseniosi, gr. xx	1	29
	Pulveris hydrargyri sulphureti rubri, ʒ j	9	88
	Unguenti aquæ rosæ, ʒ j	31	10

M.

USE: Moderately destructive in lupus.

12. *Causticum arseniosi et hydrargyri.*

℞	Hydrargyri chloridi mitis, ʒ iv	15	55
	Hydrargyri bi-sulphureti, gr. viij		51
	Acidi arseniosi, gr. xij		77

M.

USE: A moderate arsenical caustic of value in lupus.

13. *Causticum acidi nitratis hydrargyri.*

℞ Hydrargyri, ℥ j.... ..... 31|10
Acidi nitrici (Sp. gr. 1. 4), ℥ j..... 30|

M.

USE: A medium strong caustic, especially useful for syphilitic lesions.

14. *Causticum zinci et antimonii chloridi.* (Canquoin's paste).

℞ Zinci chloridi,.....
Antimonii chloridi, aa ʒ j..... 3|88
Pulveris amyli, ʒ iss..... 5|82
Aquæ, q.s.....

M. Make into a paste at the time of using.

USE: A deep acting caustic, for malignant growths.

15. *Causticum hydrargyri iodidi.*

℞ Hydrargyri iodidi rubri,.....
Unguenti aquæ rosæ, aa ʒ ij..... 7|77

M. et ft. unguent.

USE: A superficial destructive, of value in lupus.

16. *Causticum potassæ causticæ.*

℞ Potassæ causticæ, gr. v, — ʒ ij..... |32— 7|77
Aquæ, ʒ ij — ℥ j..... 7|50—30|

M. et ft. solutio.

USE: In weakest solutions a mild stimulant in acne, eczema, and psoriasis; in strongest solutions, a medium caustic, in diffuse lupus.

17. *Causticum sodii ethylatis.*

℞ Sodii ethylatis, ℥ ss..... 15|55
Alcohol absoluti, ʒ vj..... 23|32

M.

USE: Superficial caustic in vascular and pigmentary nævus.

EMPLASTRA.

18. *Emplastrum mercuriale.*

℞ Hydrargyri, ℥ j..... 31|10
Olei terebinthinæ, ℥ ss..... 13|50
Emplastri plumbi, ℥ iv..... 124|41

M. Spread on linen and apply closely to the part.

USE: In chancre, syphilitic lesions, lupus erythematosus, and sycosis.

19. *Emplastrum hydrargyri compositum.* (Emplastrum de Vigo).

℞	Hydrargyri, ʒ ij	7	77
	Olei terebinthinæ, ♏ xx	1	12
	Ceræ flavæ, gr. xx	1	29
	Resinæ, gr. xl	2	59
	Styracis, ʒ j	3	88
	Emplastri plumbi, ℥ j	31	10

M. Spread on linen and apply closely to the part.

Use: In syphilitic eruptions, acne rosacea, and sycosis.

20. *Emplastrum depilatorium.* (Epilating stick).

℞	Ceræ flavæ, ʒ iij	11	66
	Laccæ in tabulis, ʒ iv	15	55
	Picis burgundicæ, ʒ x	38	87
	Gummi damar, ℥ iss	46	65

M. Make into sticks half an inch to an inch in diameter and two inches in length.

Use: Applied with heat to extract the hairs in favus; also in hirsuties and some cases of tinea tonsurans.

GLYCERITA.

21. *Glyceritum plumbi.* (Squire's glycerole of subacetate of lead.)

℞	Plumbi acetatis, gr. cxx	7	77
	Plumbi oxidi, gr. lxxxiv	5	44
	Glycerinæ, ℥ j	40	

Digest the acetate of lead and the litharge in the glycerine (heated to 300°) in an oil bath, for half an hour, constantly stirring. Then filter in a chamber heated to 300°.

Use: Diluted from three to seven times with water and glycerine as an astringent and sedative in chronic eczema.

22. *Glyceritum acidi tannici.*

℞	Acidi tannici, ℥ j	31	10
	Glycerinæ, ℥ iv	160	

M. Rub well together and heat slowly till dissolved.

Use: Diluted with water as an astringent in seborrhœa and chronic eczema, also in herpes preputialis.

23. *Glyceritum picis liquidæ.*

℞	Picis liquidæ, ʒ ij	7	77
	Magnesii carbonatis, ʒ iv	15	55
	Glycerinæ, ℥ j	40	
	Alcohol, ℥ ss	13	50
	Aquæ, ℥ iiss	75	

M. Apply diluted with water, if irritating.

Use: An antipruritic in chronic eczema, and diluted in acute conditions.

24. *Glyceritum amyli.*

℞ Pulveris amyli, ℥ j..... 31|10
Glycerinæ, ℥ viij..... 320|

M. Rub together till mixed, and heat slowly, with stirring.

Use: Emollient, as a substitute for fatty substances in ointments.

LOTIONES.

In preparing lotions containing mineral ingredients, great care should be exercised to avoid coarse and gritty particles, which can readily irritate a delicate skin; the ingredients should be very carefully pulverized and intimately mixed. When a lotion containing a powder is applied, the resulting deposit should form a smooth, even, non-irritating coating; as a rule, parts to which lotions are applied should be kept continually moist with them, but not covered with oiled silk or too heavy dressing, as the application is then converted into a poultice. Glycerine is not well borne by every skin, and its place can be supplied by other demulcents.

25. *Lotio calaminæ et glycerinæ.*

℞ Pulveris calaminæ preparatæ, ʒ ss—ʒ j 1|94— 3|88
Zinci oxidi, ʒ j—ʒ ij..... 3|88— 7|77
Glycerinæ, ʒ j—ʒ iij..... 5| — 15|
Aquæ rosæ, ℥ iv..... 120|

M. et ft. lotio.

Use: Cooling and slightly astringent in erythematous conditions.

26. *Lotio calaminæ et cretæ* (Startin).

℞ Pulveris calaminæ preparatæ, ʒ j..... 3|88
Cretæ preparatæ, ʒ j—ʒ ij..... 3|88— 7|77
Acidi hydrocyanici diluti, ʒ ss..... 1|90
Glycerinæ, ʒ ij—ʒ iv..... 10|— 20|
Liquoris calcis, ℥ iij..... 90|
Aquæ sambuci, *ad* ℥ viij..... 240|

M. et ft. lotio.

Use: Cooling and antipruritic in subacute inflammation.

27. *Lotio bismuthi et amygdalæ.*

℞ Bismuthi sub-nitratis, ʒ iss..... 5 | 83
Acidi hydrocyanici diluti, ʒ ss— ʒ j... 1 | 90— 3 | 80
Emulsionis amygdalæ, ℥ iv..... 120

M. et ft. lotio.

Use: Antipruritic in eczema, with unbroken surface.

28. *Lotio zinci et plumbi.*

℞ Zinci oxidi, ʒ j— ʒ ij..... 3 | 88— 7 | 77
Liquoris plumbi subacetatis dil., ʒ vj.... 22 | 50
Glycerinæ, ʒ ij— ʒ iv..... 10 | —20
Infusi picis liquidæ, *ad* ℥ iv..... 120

M. et ft. lotio.

Use: In erythematous conditions.

29. *Lotio boracis et camphoræ.*

℞ Pulveris boracis, ʒ j..... 3 | 88
Tincturæ camphoræ, ʒ j— ʒ ij..... 3 | 40— 6 | 80
Glycerinæ, ʒ j— ʒ iij..... 5 | — 15
Aquæ aurantii florum, *ad* ℥ iv..... 120

M. et ft. lotio.

Use: Soothing and softening in chronic erythematous eczema, and pruritus.

30. *Lotio plumbi et opii.*

℞ Liquoris plumbi subacetatis diluti,.....
Tincturæ opii, āā ℥ j..... 30
Aquæ, *ad* Oj..... 480

M. et ft lotio.

Use: Antiphlogistic in acute inflammatory conditions.

31. *Lotio plumbi glyceriti.*

℞ Glyceriti plumbi subacetatis, ʒ j— ʒ iv.
(Squire's glycerole of the subacetate of lead. Formula 21)..... 5 | — 20
Glycerinæ, ʒ ij..... 10
Aquæ rosæ, *ad* ℥ iv..... 120

M. et ft lotio.

Use: Astringent and sedative in chronic eczema.

32. *Lotio antipruritica.*

℞ Foliorum belladonnæ,.....
Foliorum hyoscyami, āā ʒ iv..... 15|55
Foliorum aconitii, ʒ j..... 3|88
Acidi acetici, ℥ ij... ..... 60|

M. Macerate well in the acid for several days.

Use: To be diluted, a drachm or so to the ounce of water and glycerine; a powerful antipruritic.

33. *Lotio alba.*

℞ Potassii sulphureti,..... ...
Zinci sulphatis, āā ʒ j..... 3|88
Aquæ rosæ, ℥ iv..... 120|

M. Dissolve the potash and zinc, each in one-half the water, and mix.

Use: As an astringent in acne; glycerine (ʒ i—ʒ ij) may be added if too drying.

34. *Lotio sulphuris.*

℞ Sulphuris precipitati, ʒ ss..... 1|94
Glycerinæ, ʒ iv..... 20|
Aquæ rosæ, ℥ iiiss..... ..... 105|

M. et ft. lotio.

Use: As a stimulant in acne.

35. *Lotio sulphuris camphorata.*

℞ Sulphuris precipitati, ʒ ij—ʒ iv..... 7|77 — 15|55
Tincturæ camphoræ, ʒ ij..... ..... 7|50
Liquoris calcis, ℥ iv..... 120|

M. et ft lotio.

Use: As a stimulant in acne.

36. *Lotio sulphuris composita.*

℞ Sulphuris precipitati, ʒ ss—ʒ j..... 1|94 — 3|88
Etheris sulphurici, ʒ iv..... 13|50
Spiritus vini rectificati, ℥ iiiss..... 94|50

M. et ft. lotio.

Use: As an astringent in acne.

37. *Lotio calcii sulphureti.* (Vlemingkx' solution).

℞ Calcis vivæ, ʒ iv..... 15|55
Sulphuris sublimati, ʒ vj..... 23|32
Aquæ destillatæ, ℥ viss..... 195|

M. Boil together with constant stirring until the mixture measures four fluid ounces, then filter.

Use: A powerful stimulant in scabies, psoriasis, and acne.

38. *Lotio saponis viridis.* (Spiritus saponis kalinus of Hebra).

℞ Saponis viridis, ℥ iv..... 124 | 41
Spiritus vini rectificati, ℥ ij..... 54 |

M. Filtra et ft. lotio.

USE: On the scalp for a shampoo, with friction, adding a little water until a lather is formed.

39. *Tinctura saponis cum pice.*
(Compound tincture of green soap of Hebra).

℞ Olei cadini, ...
Saponis viridis,.....
Spiritus vini rectificati, āā ℥ j..... 30
M., filtra, et adde,.....
Spiritus lavandulæ, ʒ ij..... 7 | 50

M. et ft. lotio.

USE: As a stimulant in chronic eczema.

40. *Tinctura picis.*

℞ Picis liquidæ,.....
(*vel* olei rusci, *vel* olei cadini),.....
Alcohol, āā ℥ j..... ..... 31 | 10

M., solve, et filtra.

USE: A stimulant in chronic eczema and psoriasis ; to be used with caution.

41. *Lotio olei cadini.*

℞ Olei cadini, ʒ iv—℥ j..... 13 | 50— 27 |
Olei morrhuæ,.....
(*vel* olei lini, *vel* olei amygd. express.)
ad ℥ iv..... ..... 108 |

M. et ft. lotio.

USE: Applied freely as a lubricant and antipruritic in general chronic eczema.

42. *Liquor picis alkalinus.*

℞ Picis liquidæ, ℥ ij..... ... 62'20
Potassæ causticæ, ℥ j..... 31'10
Aquæ, ℥ v..... 150

M. Dissolve the potash in the water and add slowly to the tar, in a mortar, with friction.

USE: Antipruritic and stimulant in chronic eczema; when diluted from ten, to twenty times, sedative in more acute conditions.

43. *Lotio glycerinæ et potassæ.*

℞ Glycerinæ, ℥ j..... 40
Liquoris potassæ, ℥ ij..... 60

M. et ft. lotio.

USE: A strong antipruritic application, to be diluted if too irritating.

44. *Lotio acidi carbolici composita.*

℞ Acidi carbolici, ʒ ij..... 7.75
Potass causticæ, ʒ j..... 3.88
Aquae, ℥ iv..... 120

M. et ft. lotio.

USE: Antiparasitic and antipruritic; to be diluted if too irritating.

45. *Lotio amygdalæ.*

℞ Hydrargyri chlor. corrosivi, gr. v— xx 32— 1.29
Ammonii chloridi purificati, ʒ ss 1.94
Misturæ amygdalæ amar., ℥ iv..... 120

M. et ft. lotio.

USE: A stimulant and absorbent in pigmentary conditions; also a parasiticide in vegetable parasitic eruptions.

46. *Lotio hydrargyri composita.*

℞ Hydrargyri chloridi corrosivi, gr viij..... .52
Zinci sulphatis, ʒ ss..... 1.94
Plumbi acetatis, ʒ ss..... 1.94
Aquæ rosæ, ℥ iv..... 120

M. et ft. lotio.

USE: Stimulant and absorbent in pigmentary conditions.

47. *Lotio flava.*

℞ Hydrargyri chloridi corrosivi, ʒ ss..... 1.94
Aquæ calcis, Oj..... 480

M. et ft. lotio.

USE: A stimulant in phagædenic ulcers.

48. *Lotio nigra.*

℞ Hydrargyri chloridi mitis, ʒ j..... 3.88
Liquoris calcis, Oj..... 480

M. et ft. lotio.

USE: Astringent in acute erythematous conditions, and in syphilitic ulceration.

49. *Lotio plumbi et ricini.*

℞ Plumbi acetatis, gr viij		51
Olei bergamii, ʒ ss	1	94
Olei ricini, ʒ iv	15	55
Spiritus vini rectificati, *ad* ℥ iv	108	

M. et ft. lotio.

USE: Cooling and cleansing lotion for the scalp, in erythematous eczema and seborrhœa.

50. *Lotio quiniæ et zinci.*

℞ Quiniæ sulphatis, ℈ j	1	29
Zinci sulphatis, gr x		64
Tincturæ cantharidis, ʒ iij	11	66
Alcohol absoluti,		
Glycerinæ, āā ʒ iv	15	55
Spiritus myrciæ, *ad* ℥ vj	162	

M. et ft. lotio.

USE: Mildly stimulating lotion for the scalp.

51. *Lotio cantharidis et capsici.*

℞ Tincturæ cantharidis, ʒ ij—ʒ iv	7	77—15 55
Tincturæ capsici, ʒ ij—ʒ iv	7	77—15 55
Tincturæ nucis vomicæ, ʒ iv	15	55
Olei ricini, ʒ ij—ʒ iv	7	77—15 55
Spiritus vini rectificati,		
(*vel* aquæ cologniensis,) *ad* ℥ iv	124	41

M. et ft. lotio.

USE: Stimulating lotion for the scalp in alopecia.

MISTURÆ.

The following formulæ for mixtures represent average doses for adults. Occasionally the efficient dose is even larger than here given: some of the prescriptions are quite inapplicable for children, and their dosage must be governed by general rules.

52. *Mistura ferri et magnesii.*

℞	Magnesii sulphatis, ʒ vj—℥ jss.....	23	32—46	65
	Ferri sulphatis, ʒ j	3	88	
	Acidi sulphurici diluti, ʒ ij.....	10		
	Syrupi pruni virginianæ, ℥ j.....	40		
	Aquæ, *ad* ℥ iv.....	120		

M. S. Teaspoonful in water, through a tube, after meals.

Use: An aperient and cooling tonic in acute erythematous conditions: quinine and strychnine may often be added to this with advantage.

53. *Mistura potassii acetatis.*

℞	Potassii acetatis, ʒ iv—℥ jss.....	15	55—46	65
	Tincturæ nucis vomicæ, ʒ ij.....	7	77	
	Infusi quassiæ..... ...			
	(*vel* tincturæ cinchonæ comp.), *ad* ℥ iv..	120		

M. S. Teaspoonful in water, after meals.

Use: An antacid tonic in acute erythematous affections, and in chronic eczema in gouty subjects.

54. *Mistura ammonii acetatis.*

℞	Potassii acetatis, ʒ j—ʒ iij....	3	88—11	66
	Spiritus etheris nitrosi, ʒ ij—ʒ iv.....	6	75—13	50
	Tincturæ aconiti radicis, ♏xv—ʒ ss....		80— 1	70
	Liquoris ammonii acetatis, *ad* ℥ iv.....	120		

M. S. Teaspoonful in water, on an empty stomach.

Use: In febrile conditions in children, in eczema and other disorders.

55. *Mistura rhei et sodii.*

℞	Pulveris rhei, ʒ j—ʒ ij.....	3	88— 7	77
	Sodii bi-carbonatis.....			
	(*vel* magnesiæ), ʒ j—ʒ iij.....	3	88—11	66
	Aquæ menthæ piperitæ, ℥ iv.....	120		

M. S. Teaspoonful in water, after meals.

Use: Antacid and corrective in eczema, and inflammatory affections.

56. *Mistura rumicis composita.*

℞	Potassii acetatis, ℥ ss—℥ j.....	15	55—31	10
	Tincturæ nucis vomicæ, ʒ ij	7	50	
	Extracti rumicis radicis fluidi, ℥ iv.....	120		

M. S. Teaspoonful half an hour before meals, largely diluted.

Use: In indurated and rosaceous acne.

57. *Mistura taraxici composita.*

Potassii acetatis, ʒ j	31	10
Spiritus ætheris nitrosi, ʒ jss	40	50
Acidi acetici diluti, 3 j	3	75
Extracti taraxici fluidi, ʒ ij	60	

M. S. Teaspoonful on an empty stomach, well diluted.

USE: In indurated and rosaceous acne.

58. *Mistura ferri et cinchonæ.*

℞ Ferri et ammonii citratis, 3 j	3	88		
Potassii citratis, 3 ij	7	77		
Liquoris potassii arsenitis, 3 j—3 ij	3	75—	7	50
Tincturæ nucis vomicis, 3 ij	7	50		
Tincturæ cinchonæ compositæ, *ad* ʒ iv	120			

M. S. Teaspoonful in water, after meals.

USE: Tonic and alterative in eczema and chronic affections.

59. *Mistura ferro-arsenicalis.*

℞ Ferri et ammonii citratis, 3 j	3	88		
Liquoris potassii arsenitis, 3 ss—3 ij	1	90—	7	50
Liquoris potassæ, 3 j—3 ij	3	75—	7	50
Syrupi pruni virginianæ, ʒ j	40			
Vini ferri dulcis (Malaga), *ad* ʒ iv	120			

M. S. Teaspoonful after meals.

USE: Especially valuable for children, as a tonic and alterative.

60. *Mistura arsenici chloridi.*

℞ Liquoris arsenici chloridi, 3 j—3 iv	3	75—	15	
Acidi muriatici diluti, 3 iv	15			
Tincturæ ferri chloridi, 3 ij—3 iv	7	50—	15	
Aquæ, *ad* ʒ iv	120			

M. S. Teaspoonful in water, through a tube, during or after meals.

USE: Powerful tonic in chronic inflammatory affections.

61. *Mistura hydrargyri et potassii iodidi.*

℞ Hydrargyri chlor. corros., gr. j—gr. ij		06		12
Potassii iodidi, 3 ij—3 iv	7	75—	23	32
Ferri et ammonii citratis, 3 j	3	88		
Tincturæ nucis vomicæ, 3 ij	7	50		
Tincturæ cinchonæ compositæ, *ad* ʒ iv	120			

M. S. Teaspoonful, in water, after meals.

USE: In syphilitic eruptions, and as an alterative.

62. *Mistura hydrargyri et ferri.*

℞	Hydrargyri chlor. corros, gr. j—gr. ij,		06			13
	Potassii iodidi, ʒ iij—ʒ iv.....	11	66—	23		32
	Ferri et ammoniii citratis, ʒ j.....	3	88			
	Vinii ferri dulcis (Malaga), ℥ iv.....	120				

M. S. Teaspoonful after meals.

USE: In syphilitic eruptions, and as an alterative.

63. *Mistura acidi nitrici.*

℞	Acidi nitrici fortioris, ʒ ss—ʒ j.....	2	50—	5	
	Syrupi zinziberis, ℥ ss.....			20	
	Tincturæ gentianæ compositæ, ℥ j....			30	
	Aquæ, *ad* ℥ iv.....			120	

M. S. Teaspoonful in water, through a tube, after meals.

USE: A bitter tonic, in cases exhibiting oxaluria and liver derangement.

64. *Mistura ferri et phosphori.*

℞	Tincturæ ferri chloridi,.....		
	Acidi phosphorici diluti, āā. ℥ j.....	30	
	Syrupi limonis, ℥ ij.....	80	

M. S. One half to one teaspoonful in water, through a tube, after meals

USE: An iron tonic in nervous cases.

PILULÆ.

65. *Pilulæ hydrargyri, colocynthidis, et ipecac.*

℞	Pilulæ hydrargyri,.....		
	Extracti colocynthidis comp. āā gr. x.....		64
	Pulveris ipecacuanhæ, gr. ij.....		13

M. et divide in pilulas No. iv.

S. Take two at night and two on the second night after; to be followed each morning by a Seidlitz powder or Kissingen water.

USE: A moderate cathartic in cases exhibiting liver derangement.

66. *Pilulæ ferri et aloes.*

℞	Ferri sulphatis exsiccati, ʒ ss.....	1	94
	Pulveris aloes purificatæ, ℈j.....	1	29
	Pulveris aromatici, ʒ j.....	3	88
	Confectionis rosæ, ℈j.....	1	29

M. et divide in pilulas No. xl.

S. Take one or more after each meal, and diminish the dose and its frequency as rapidly as possible.

USE: A tonic laxative in habitual constipation.

67. *Pilulæ rhei, sodii, et ipecac.*

℞ Pulveris rhei,.....
Sodii bicarbonatis, āā ʒ ss— ʒ j..... 1|94— 3|88
Pulveris ipecacuanhæ, gr. x..... |64

M. et divide in pilulas No. xxx. S. Take one after meals.

USE: A mild laxative and corrective in digestive derangement.

68. *Pilulæ ferri et arsenici.*

℞ Liquoris potassii arsenitis, ʒ j— ʒ ij. 3|75— 7|50
Ferri sulphatis exsiccat, ʒ j..... 3|88
Sodii bicarbonatis, ʒ j— ʒ ij..... 3|88— 7|77
Extracti gentianæ, ʒ ss— ʒ j..... 1|94— 3|88

M. Evaporate and divide into 30 pills. S. Take one after meals.

USE: Alterative and tonic.

69. *Pilulæ hydrargyri proto-iodidi.*

℞. Hydargyri iodidi viridis, ℈ j..... 1|29
Extracti conii alcoholici, ℈ ij..... 2|59

M. et divide in pilulas No. xl. S. Take one after meals.

USE: In syphilitic eruptions.

70. *Pilulæ ferri et potassii.*

℞. Ferri sulphatis exsiccati,.....
Potassii carbonatis,.....
Potassii tartratis, āā ℥ ss..... 15|55

M. et divide in pilulas No. xcvi.

S. Take, at first, one after meals and increase up to three or more after each meal.

USE: Powerfully tonic in chlorotic cases.

71. *Pilulæ zinci phosphidi.*

℞. Zinci phosphidi,.....
Extracti nucis vomicæ, āā gr x..... |64

M. et divide in pilulas No. xxx. S. Take one every 2 to 4 hours.

USE: Nerve tonic, in zoster, leucoderma, etc.

PULVERES.

72. *Pulvis hydrargyri chloridi.*

℞. Hydrargyri chloridi mitis, gr. v—gr xv.. |32— |97
Sodii bicarbonatis, gr. x—gr. xxx..... |64— 1|94

M. et divide in pulveres No. vi.

S. Take one every other morning; for children.

USE: Laxative and alterative in infantile eczema.

73. *Pulvis bismuthi et sodii.*

℞. Bismuthi subnitratis, ʒ j—ʒ ij..... 3|88— 7|77
Sodii bicarbonatis, ʒ ij..... 7|77
Pulveris zinziberis, ℈ij..... 2|59

M. et divide in pulveres No. xii. S. Take one after meals.

USE: Corrective in dyspepsia, in acne and eczema.

74. *Pulvis manganesii et pepsini.*

℞. Manganesii oxidi nigri,.....
Pepsini porci, āā ʒ j..... 3|88

M. et divide in pulveres No. xii. S. Take one or more after meals.

USE: Digestive and tonic in dyspepsia; in acne and eczema.

75. *Pulvis amyli iodidi.*

Add tincture of iodine to boiled starch until it ceases to give a blue color and all is black. Evaporate to dryness and powder. Each 20 grains represents one grain of iodine, or about 15 minims of the tincture of iodine U. S. P.

USE: A safe method of administering iodine in late syphilis and lupus erythematous.

In preparing dusting powders for external use the greatest caution must be exercised that they are in the finest possible state, and entirely free from gritty particles: those which contain mineral substances should be shaken or stirred before being applied, as otherwise, a separation of the ingredients may interfere with their beneficial action. Care must be taken that powders be not allowed to cake upon the skin or to become worked into a paste, as in the flexures of the joints and elsewhere.

76. *Pulvis antipyreticus.*

℞ Buckwheat flour—

USE: This forms a most agreeable and cooling application if kept continually applied in acute erythematous conditions.

77. *Pulvis calaminæ compositus.*

℞ Pulveris calaminæ prepar..... | 31 | 10
Pulveris oryzæ sativæ, āā ʒ j..... |

M. et ft pulvis.

USE: As a dusting powder in acute erythematous and vesicular eruptions.

78. *Pulvis terræ cimoliæ.*

℞ Fuller's earth, in fine powder,

USE: An absorbent application in eczema and intertrigo.

79. *Pulvis magnesii et acidi salicylici.*

℞ Magnesii usti, ʒ v..... 19 | 43
Pulveris talci venetii, ʒ ijss..... 77 | 76
Acidi salicylici, gr. xij..... 77
Balsamii peruviani, gtt. x..... 80

M. et ft. pulvis.

USE: An absorbent and astringent application in acute erythematous conditions and hyperidrosis.

80. *Pulvis magnesii carbonatis.*

℞ Magnesii carbonatis levis,..... | 15 | 55
Pulveris lycopodii, āā ʒ ss..... |

M. et ft. pulvis.

USE: As a dusting powder in erythematous eczema.

81. *Pulvis antipruriticus.*

℞ Chloralis hydratis,..... |
Camphoræ, āā ʒ j..... | 3 | 88
Rub together until liquid, and incorporate with
Pulveris amyli, ʒ j—ʒ ij..... | 31 | 10

M. Keep tightly corked in a wide-mouthed bottle.

USE: A powerful antipruritic, to be well rubbed in with the hand.

82. *Pulvis camphoræ et zinci.*

℞ Pulveris camphoræ, ʒ ss—ʒ j ..... 1 94— | 3 | 88
Zinci oxidi, ʒ iv..... 15 55
Pulveris amyli, ʒ j..... 31 10

M et ft. pulvis.

USE: As a dusting powder to relieve pruritus.

UNGUENTA.

In the preparation of ointments too much care cannot be exercised in reducing to the finest possible state the substances to be incorporated, for more harm than good is often done by having coarse particles in an ointment which is to be applied to an abraded surface. The physician should, therefore, take especial supervision over the preparation of ointments, and should frequently inspect those in use by the patient. It is well to first grind down any mineral ingredient in a mortar, adding a little sweet almond oil, making it into a paste, which is then to be added to the excipient. The greatest care must also be exercised that the material be perfectly fresh, for the least rancidity of the ointment renders it irritating. The preparations of petroleum, cosmoline and vaseline meet this requirement, but where protection of the part is desired a more solid substance is needed, and most of the following prescriptions are made with the unguentum aquæ rosæ, U. S. P., a most invaluable aid in the treatment of skin diseases. Ointments should always be spread on cloth, as on the wooly side of lint, when the surface is raw; in chronic conditions gain is had by rubbing them in. When protection is desired, it is well to have new dressings ready spread with the ointment before the old ones are removed.

83. *Unguentum zinci oxidi.*

℞	Zinci oxidi, 3 ss—3 j		1	94—	3 88
	Unguenti aquæ rosæ, ℥ j		31	10	

M. et ft. unguentum.

USE: Soothing and protective; a drachm of tincture of camphor or chloroform may be added, or from five to fifteen drops of carbolic acid, as an antipruritic.

84. *Unguentum calaminæ.*

℞	Acidi carbolici, gtt. v—xvj			32—	1 03
	Pulveris calaminæ prep., 3 ss—3 j		1	94—	3 88
	Zinci oxidi, 3 ss—3 j		1	94—	3 88
	Unguenti aquæ rosæ, ℥ j		31	10	

M. et ft. unguentum.

USE: Soothing and protective.

85. *Unguentum bismuthi sub-nitratis.*

℞	Bismuthi sub-nitratis, 3 ss—3 ij		1	94—	7 77
	Unguenti aquæ laurocerasi, ℥ j		31	10	

M. et. ft. unguentum.

USE: Soothing and mildly astringent.

86. *Unguentum bismuthi* (vel *zinci*) *oleatis* (Anderson).

℞	Bismuthi oxidi,			
	(*vel* zinci oxidi), 3 ij		7	77
	Acidi oleici, ℥ ij		62	20
	Unguenti petrolei, ℥ ij + 3 ij		70	
	Ceræ albæ, 3 vj		23	32
	Olei rosæ, gtt vj			32

M. Rub up the bismuth (or zinc) oxide with the oleic acid, and let it stand for two hours; place in a water bath, add the vaseline and wax, and when dissolved stir until cold and add the oil of roses.

USE: Soothing and astringent in acute inflammatory conditions.

87. *Unguentum acidi tannici.*

℞	Acidi tannici, 3 j		3	88
	Unguenti aquæ rosæ, ℥ j		31	10

M. et ft. unguentum.

USE: Astringent; of especial service in eczema of the scalp and ears.

88. *Unguentum picis et zinci.*

℞ Unguenti picis liquidæ, ʒ j—ʒ iij..... 3|88— 11|66
Zinci oxidi, ʒ ss—ʒ j..... 1|94— 3|88
Unguenti aquæ rosæ, *ad* ℥ j..... 31|10

M. et ft. unguentum.

USE: Antipruritic and protective; of especial value in infantile eczema.

89. *Unguentum cadini et zinci.*

℞ Olei cadini (*vel* rusci), ʒ ss—ʒ j..... 1|94— 3|88
Zinci oxidi, ʒ ss—ʒ j..... 1|94— 3|88
Unguenti aquæ rosæ, ℥ j..... 31|10

M. et ft. unguentum.

USE: Antipruritic and mildly astringent.

90. *Unguentum picis et hydrargyri.*

℞ Liquoris picis alkalini, ʒ j—ʒ iij..... 3|88— 11|66
(See Formula 42.)
Unguenti hydrarg. ammon., ʒ ij—ʒ iv 7|77— 15|55
Unguenti aquæ rosæ, *ad* ℥ j..... 31|10

M. et ft. unguentum.

USE: Antipruritic and mildly stimulating; of especial value in psoriasis of the scalp.

91. *Unguentum hydrargyri et bismuthi.*

℞ Bismuthi sub-nitratis, ʒ j..... 3|88
Unguenti hydrarg. ammon., ʒ j—ʒ iv 3|88— 15|55
Unguenti aquæ rosæ, *ad* ℥ j..... 31|10

M. et ft. unguentum.

USE: Astringent and slightly stimulating.

92. *Unguentum hydrargyri nitratis.*

℞ Unguenti hydrargyri nitratis, ʒ j—ʒ iij 3|88— 11|66
Unguenti aquæ rosæ, *ad* ʒ j..... 31|10
Olei geranii, gtt. v..... |28

M. et ft. unguentum.

USE: Mildly stimulating in chronic eczema.

93. *Unguentum hydrargyri oxidi rubri.*

℞ Unguenti hydrarg. oxidi rub., ʒ j—ʒ iij 3|88— 11|66
Unguenti aquæ rosæ, *ad* ℥ j..... 31|10

M. et ft. unguentum.

USE: Mildly stimulating in chronic eczema.

94. *Unguentum diachyli.* (Hebra's Diachylon ointment).

℞	Olei olivarum optimi, ℥ xv	466	54
	Plumbi oxidi, ℥ iij + ʒ vj	116	62
	Olei lavandulæ, ʒ ij	6	75

M. Add the oil to two pounds of water and heat it with constant stirring; the litharge is to be slowly sifted in while it is well stirred, fresh water being added as required. The ointment is to be stirred until cold and the lavender then added. In winter a slightly larger quantity of oil is required to make a soft ointment.

USE: Astringent and soothing, but irritating to some skins in acute conditions.

95. *Unguentum diachyli modificatum.*

℞	Emplastri diachyli,		
	Vaseline, āā, ℥ j	31	10

M. Dissolve with heat, and stir until cold.

USE: Astringent and soothing in subacute eczema.

96. *Unguentum hydrargyri cum plumbo* (Startin).

℞	Plumbi acetatis,		
	Hydrargyri chloridi mitis, āā gr. x		64
	Zinci oxidi,		
	Unguenti hydrargyri nitratis, āā ℈j	1	29
	Adipis recentis,		
	Olei palmæ rectificati, āā ℥ ss	15	55

M. et ft. unguentum.

USE: Moderately stimulating; much used in England in eczema capitis.

97. *Unguentum plumbi et stramonii.*

℞	Liquoris plumbi subacetatis diluti, ʒ j	3	75
	Acidi tannici, ℈j	1	29
	Unguenti stramonii, ℥ j	31	10

M. et ft. unguentum.

USE: Astringent and soothing; of especial value in external hemorrhoids.

98. *Unguentum acidi chrysophanici.*

℞	Acidi chrysophanici, ʒ ss—ʒ ij	1	94— 7 77
	Unguenti aquæ rosæ, ℥ j	31	10

M. Dissolve with heat and stir until cold.

USE: Powerfully stimulating and irritant to many skins; of especial value in psoriasis and ringworm.

99. *Unguentum acidi pyrogallici.*

℞	Acidi pyrogallici, ℈j—ʒ ij.....	1	29—	7	75
	Unguenti aquae rosæ, ℥ j.....	31	10		

M. Dissolve with heat and stir until cold.

USE: Moderately stimulating in weakest, caustic in greatest strength; of especial value in psoriasis and ringworm.

100. *Unguentum styracis et sulphuris.*

℞	Styracis liquidis, ʒ ij.....	10					
	Unguenti sulphuris, ʒ ij—ʒ iv.....	7	77—	15	55
	Unguenti petrolei, *ad* ℥ j.....	31	10		

M. et ft. unguentum.

USE: Anti-parasitic and moderately stimulating, for scabies.

101. *Unguentum sulphuris compositum.*

(Modified Wilkinson's ointment.)

℞	Sulphuris sublimati,.....						
	Olei cadini, āā ʒ ij.....	7	77				
	Cretæ preparatæ, ʒ ijss.....	9	71				
	Saponis viridis,.....						
	Adipis, āā ℥ j.....	31	10				

M. et ft. unguent.

USE: A rather stimulating remedy for scabies.

102. *Unguentum hydrargyri et olei rusci.*

℞	Olei rusci, ʒ ss—ʒ j.....	2	50—		5		
	Unguenti hydrarg. oxidi rub., ʒ j—ʒ iij	3	88—	11	66
	Unguenti aquæ rosæ, *ad* ℥ j.....	31	10		

M. et ft. unguentum.

USE: Mildly stimulating and anti-parasitic, in chronic eczema and ringworm.

103. *Unguentum hydrargyri et iodinii.*

℞	Unguenti hydrargyri,.....						
	Unguenti iodinii comp.....						
	Unguenti diachyli (Formula 94) āā ℥ ss.....	15	55				

Misce intime.

USE: Powerfully stimulant; to be rubbed well into the skin over syphilitic indurations and bone lesions.

104. *Unguentum acidi carbolici.*

℞	Acidi carbolici, ℈ j—3 ij.....	1	29—	7	77
	Glyceriti amyli (Formula 24) (*vel* unguenti petrolei), ℥ iv.....	124	41		

M. et ft. unguentum.

USE: Antipruritic, to be used freely to the body, especially after alkaline baths.

105. *Unguentum anti-pruriticum.*

℞	Gummi camphoræ,.....				
	Chloralis hydratis, āā 3 j—3 ij.....	3	88—	7	77
	Rub together until a liquid results, then add slowly with friction,...				
	Unguenti aquæ rosæ, ℥ j.....	31	10		

M. et ft. unguentum.

USE: Powerfully antipruritic; if applied where the surface is abraded it causes burning and irritation.

106. *Unguentum picis et belladonnæ.*

℞	Unguenti picis liquidæ, 3 vj.....	23	32
	Unguenti belladonnæ, 3 iv.....	15	55
	Tincturæ aconiti, 3 j.....	3	75
	Zinci oxidi, 3 ij.....	7	77
	Unguenti aquæ rosæ, 3 vj.....	23	32

M. et ft. unguentum.

USE: Powerfully antipruritic; of especial service in pruritus and eczema of the vulva.

107. *Unguentum sulphuris hypochloridi.*

℞	Sulphuris hypochloridi, 3 j—3 ij.....	3	88—	7	77
	Extracti rumicis rad. 3 ij—3 iv.....	7	77—	15	55
	Unguenti aquæ rosæ, ℥ j.....	31	10		

M. et ft. unguentum.

USE: Stimulating and absorbent, in acne indurata.

108. *Solutio hydrargyri.*

℞	Hydrargyri chloridi corrosivi, gr. iv.....		25
	Glycerinæ, 3 j.....	3	88
	Aquæ destillatæ, 3 vij..	27	21

M.

USE: For hypodermic injection in syphilis; twelve drops contain one tenth of a grain of mercury.

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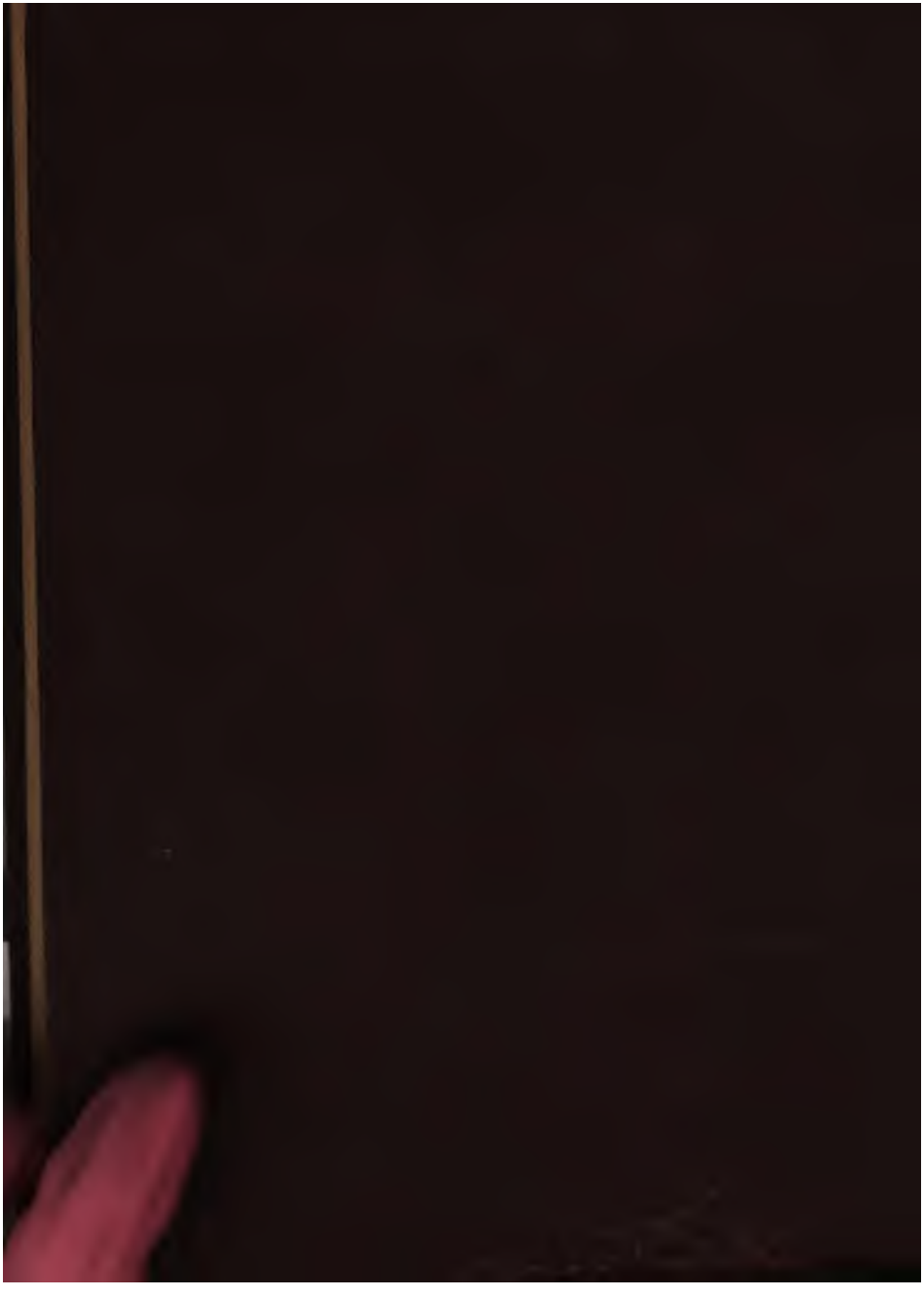
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